XR-C2600

SERVICE MANUAL

E Model

Ver 1.1 2002.05

Model Name Using Similar Mechanism	XR-1100
Tape Transport Mechanism Type	MG-36SZ10-32

SPECIFICATIONS

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.13 % (WRMS)
Frequency response	30 – 15,000 Hz
Signal-to-noise ratio	55 dB

Tuner section

FM

Tuning range	FM tuning interval: 50 kHz/200 kHz switchable 87.5 – 108.0 MHz (at 50 kHz step) 87.5 – 107.9 MHz (at 200 kHz step)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	
	0.7 % (stereo), 0.4 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	AM tuning interval: 9 kHz/10 kHz switchable 531 – 1,602 kHz (at 9 kHz step) 530 – 1,710 kHz (at 10 kHz step)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 μV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	45 W × 4 (at 4 ohms)

General

Outputs	Audio output Power antenna relay control lead Power amplifier control lead Telephone ATT control lead
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 × 58 × 182 mm (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 163 mm (w/h/d)
Mass	Approx. 1.2 kg
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

FM/AM CASSETTE CAR STEREO

9-870-063-12
2002E0500-1
© 2002.5
Sony Corporation
e Vehicle Company
Published by Sony Engineering Corporation

SONY

TABLE OF CONTENTS

1. GENERAL

Location of Controls 3
Setting the Clock 3
Installation 4
Connections 5

2. DISASSEMBLY 7

3. MECHANICAL ADJUSTMENTS 10

4. ELECTRICAL ADJUSTMENTS

Test Mode 10
Tape Deck Section 10
Tuner Section 12

5. DIAGRAMS

5-1. Note for Printed Wiring Boards and Schematic Diagrams 14
5-2. Printed Wiring Board – MAIN Board – 15
5-3. Schematic Diagram – MAIN Board (1/2) – 16
5-4. Schematic Diagram – MAIN Board (2/2) – 17
5-5. Printed Wiring Board – KEY Board – 18
5-6. Schematic Diagram – KEY Board – 19
5-7. IC Pin Function Description 21

6. EXPLODED VIEWS 23

7. ELECTRICAL PARTS LIST 26

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

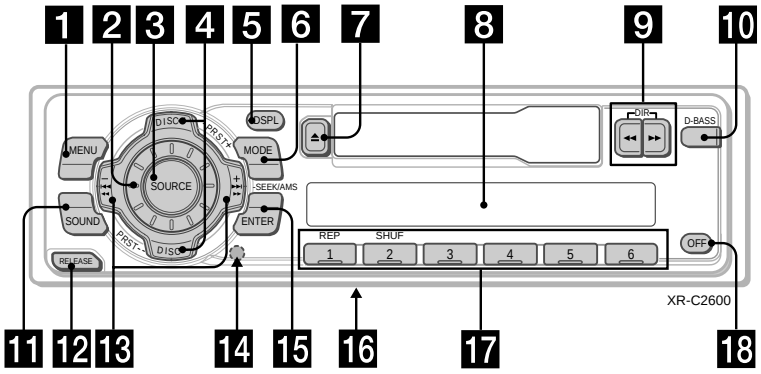
Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SECTION 1
GENERAL

This section is extracted from instruction manual.

Location of controls



Refer to the pages listed for details.

1 **MENU button 7, 9, 10, 11, 13**

2 **Volume control dial**

3 **SOURCE (TUNER/CD/MD) button 9, 10, 12**

4 **PRST/DISC +/– (cursor up/down) buttons 7, 9, 10, 11, 13**
During radio reception:
Preset stations select 10
During CD/MD playback:
Disc change 13

5 **DSPL (display mode change) button 8, 12, 13**

6 **MODE button**
During radio reception:
BAND select 9, 10
During CD or MD playback:
CD/MD unit select 12

7 **⏏ (eject) button 8**

8 **Display window**

9 **◀◀/▶▶(fast winding)/DIR (tape transport direction change) buttons 8**

10 **D-BASS button 12**

11 **SOUND button 11**

12 **RELEASE (front panel release) button 6, 15**

13 **SEEK/AMS –/+ (cursor left/right) buttons 7, 9, 10, 11, 13**
seek 10
Automatic Music Sensor 13
manual search 13

14 **Reset button (located on the front side of the unit behind the front panel) 6**

15 **ENTER button 7, 9, 10, 11, 13**

16 **Frequency select switch (located on the bottom of the unit)**
See "Frequency select switch" in the Installation/Connections manual.

17 **Number buttons**
During radio reception
Preset number select 10
During CD/MD playback:
(1) REP 14
(2) SHUF 14

18 **OFF button* 6**

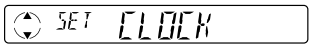
* **Warning when installing in a car without ACC (accessory) position on the ignition key switch**
Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turning off the engine.
When you press (OFF) momentarily, the clock display does not turn off and this causes battery wear.

Setting the clock

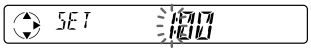
The clock uses a 12-hour digital indication.

Example: To set the clock to 10:08

1 **Press (MENU), then press either side of (PRST/DISC) repeatedly until "CLOCK" appears.**



❶ Press (ENTER).



The hour indication flashes.

❷ Press either side of (PRST/DISC) to set the hour.

❸ Press + side of (SEEK/AMS).

The minute indication flashes.

❹ Press either side of (PRST/DISC) to set the minute.

2 **Press (ENTER).**

The clock starts.

After the clock setting is complete, the display returns to normal playback mode.

Installation

Precautions

- Choose the installation location carefully so that the unit will not interfere with normal driving.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperatures, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

Adjust the mounting angle to less than 20°.

How to detach and attach the front panel

Before installing the unit, detach the front panel.

A To detach

Before detaching the front panel, be sure to press (OFF). Press (RELEASE), then slide the front panel a little to the left, and pull it off towards you.

B To attach

Attach part Ⓐ of the front panel to part Ⓑ of the unit as illustrated and push the left side into position until it clicks.

Instalación

Precauciones

- Elija cuidadosamente el lugar de montaje de forma que la unidad no interfiera las funciones normales de conducción.
- Evite instalar la unidad donde pueda quedar sometida a altas temperaturas, como a la luz solar directa o al aire caliente de calefacción, o a polvo, suciedad, o vibraciones excesivas.
- Para realizar una instalación segura y firme, utilice solamente la ferretería de montaje suministrada.

Ajuste del ángulo de montaje

Ajuste el ángulo de montaje a menos de 20°.

Forma de extraer e instalar el panel frontal

Antes de instalar la unidad, extraiga el panel frontal.

A Para extraerlo

Antes de extraer el panel frontal, asegúrese de presionar (OFF). Presione (RELEASE), deslice el panel ligeramente hacia la izquierda y tire de él hacia fuera.

B Para instalarlo

Coloque el orificio Ⓐ del panel frontal en el eje Ⓑ de la unidad, como se muestra en la ilustración, y después presione la parte izquierda hasta que encaje.

安裝

使用前須注意

- 本機請放在不妨礙司機駕駛之處。
- 避免將本機放在高溫之處，如陽光直接照射、暖氣機前，或灰塵極多、髒亂，以及極易受震動等地方。
- 為了安全及可靠的安裝起見，限使用附帶的部件。

安裝角度之調整

請在 20 度以內調整安裝角度。

如何拆卸和裝配前板

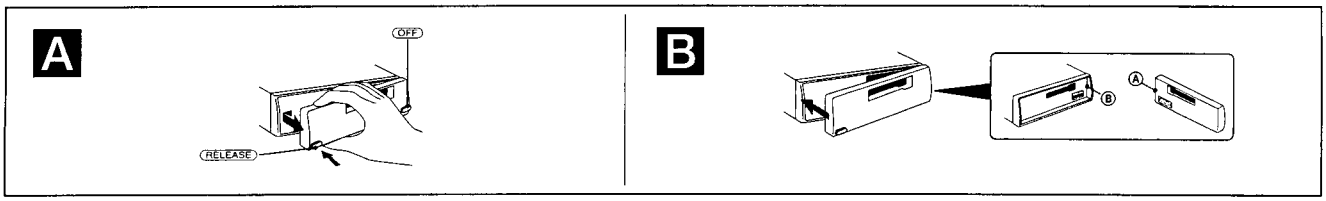
安裝本機之前，請先拆卸前板。

A 拆卸

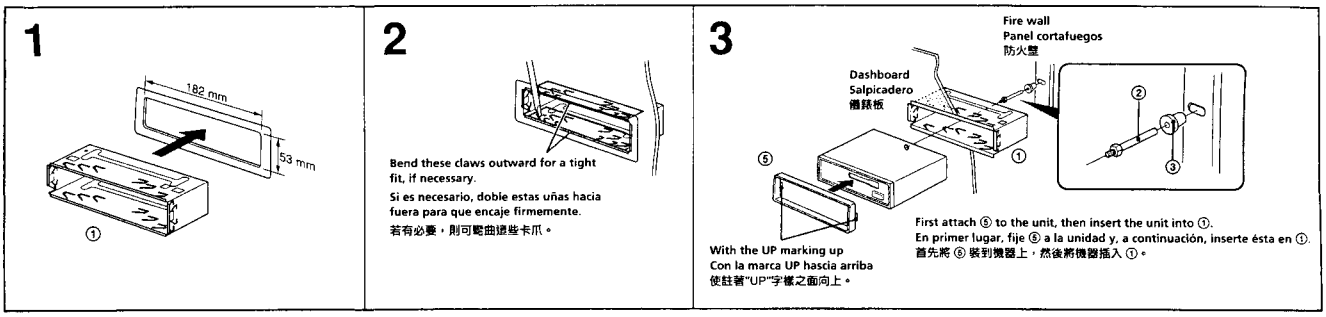
拆卸前板之前，務必按下 (OFF) 鍵。然後，按下 (RELEASE) 鍵，將前板稍微向左邊滑動，朝您自己的方向拉出。

B 裝配

如圖所示，將前板的Ⓐ處對準本機的Ⓑ處，然後將左側推入直至聽到喀噠聲。



Installation in the dashboard



Instalación en el salpicadero

安裝在儀錶板裡

Mounting the unit in a Japanese car

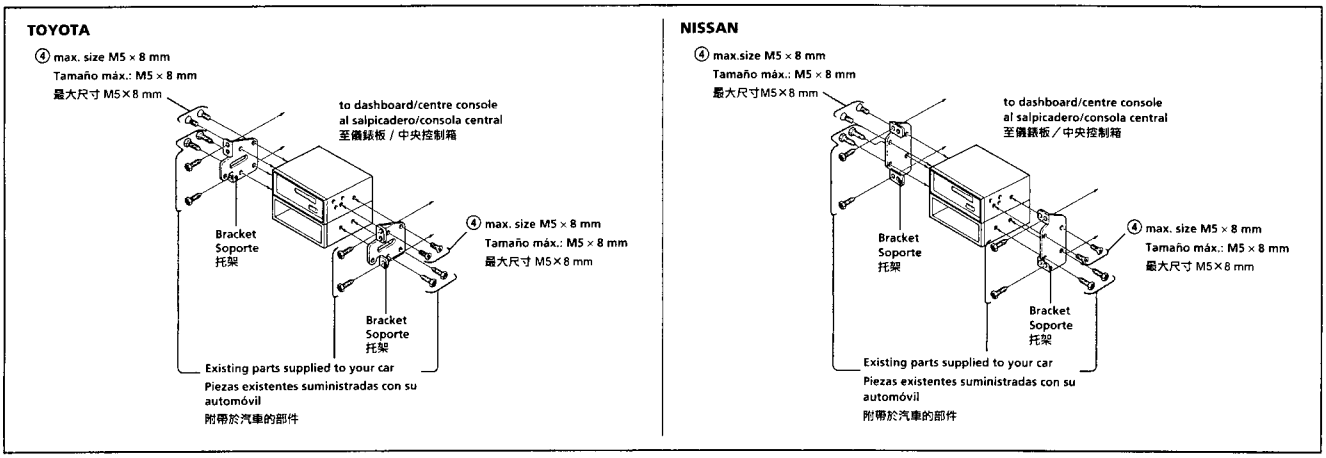
You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.

Montaje de la unidad en un automóvil japonés

Es posible que no pueda instalar esta unidad en algunos automóviles japoneses. En tal caso, consulte a su proveedor Sony.

將本機安裝於日本產汽車裡

有的日本產汽車不能安裝本機，此時，請洽詢當地的 Sony 經銷商。



Note
To prevent malfunction, install only with the supplied screws ④.

Nota
Para evitar un funcionamiento incorrecto, utilice sólo los tornillos suministrados ④.

註
為防止發生故障，安裝時只能使用附帶的螺絲 ④。

Connections

Cautions

- This unit is designed for negative earth 12 V DC operation only.
- Be careful not to pinch any wires between a screw and the body of the car or this unit or between any moving parts such as the seat railing, etc.
- Before making connections, disconnect the earth terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all earth wires to a common earth point.**
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual component's fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.

Warning when installing in a car without ACC (accessory) position on the ignition key switch

Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turned off the engine.
When you press (OFF) momentarily, the clock display does not turn off and this causes battery wear.

Frequency select switch

The AM (FM) tuning interval is factory-set to the 9K (50 K) position. If the frequency allocation system of your country is based on 10 kHz (200 kHz) interval, set the switch on the bottom of the unit to the 10 K (200 K) position before making connections.

Note
When you change the position of the switch, be sure to press the reset buttons after the connections are completed.

Reset button

When the installation and connections are over, be sure to press the reset button with a ballpoint pen, etc.

Conexiones

Precauciones

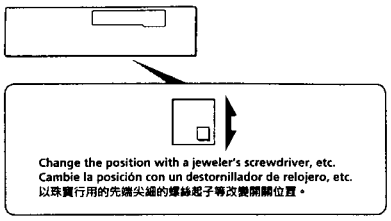
- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- Tenga cuidado de no atrapar ningún cable entre algún tornillo y la carrocería del automóvil o esta unidad o entre las partes móviles, como por ejemplo los raíles del asiento, etc.
- Antes de realizar las conexiones, desconecte el terminal de puesta a masa de la batería del automóvil a fin de evitar cortocircuitos.
- Conecte los cables conectores de alimentación **amarillo** y **rojo** solamente después de haber conectado los demás.
- Cerciórese de conectar el cable conector de alimentación rojo a un terminal de 12 V positivo que se active al poner la llave de encendido en la posición para accesorios.
- **Conecte todos los conductores de puesta a masa a un punto común.**
- Conecte el cable amarillo a un circuito libre del automóvil que tenga una capacidad superior a la del fusible de la unidad. Si conecta esta unidad en serie con otros componentes estereofónicos, el circuito del automóvil al que se encuentran conectados debe tener una capacidad superior a la suma de las capacidades de los fusibles de cada componente. Si ningún cicuito del automóvil tiene una capacidad tan alta como la del fusible de la unidad, conecte ésta directamente a la batería. Si el automóvil no dispone de ningún circuito para conectar esta unidad, conéctela a un circuito del automóvil con capacidad superior a la del fusible de la unidad, de forma que si se funde el fusible de ésta, no se interrumpa ningún otro circuito.

Advertencia sobre la instalación en un automóvil que no disponga de posición ACC (accesorios) en el interruptor de la llave de encendido

Asegúrese de presionar (OFF) en la unidad durante dos segundos para desactivar la indicación del reloj una vez apagado el motor.
Si presiona (OFF) momentáneamente, la indicación del reloj no se desactivará y esto causará el desgaste de la batería.

Selector de frecuencia

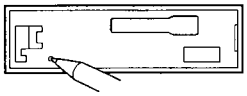
El intervalo de sintonía de AM (FM) ha sido ajustado en fábrica en la posición 9 K (50 K). Si el sistema de asignación de frecuencias de su país se basa en el intervalo de 10 kHz (200 kHz), ponga este selector, situado en la base de la unidad, en la posición 10 K (200 K) antes de realizar las conexiones.


Change the position with a jeweler's screwdriver, etc.
Cambie la posición con un destornillador de relojero, etc.
以珠寶行用的先端尖細的螺絲起子等改變開關位置。

Nota
Cuando haya cambiado la posición del selector, cerciórese de presionar los botones de reposición después de haber finalizado las conexiones.

Botón de reposición

Cuando finalice la instalación y las conexiones, cerciórese de presionar el botón de reposición con un bolígrafo, etc.



線路之連接

注意

- 本機只能使用負極接地 12 V 直流電源。
- 小心別使任何導線夾緊在螺栓和車身或本機間，也不夾緊在任何活動部件諸如座椅扶手間等。
- 連接前，先拔去汽車電池的接地端子，以免發生短路。
- **黃色**和**紅色**電源輸入導線必須在所有其它導線都連接完畢以後才連接。
- 紅色電源導線務請連接至 + 12 V 電源端子，該電源端子在汽車發動機點火鑰匙處於輔助位置時才通電。
- **將所有地線都連接到同一地點。**
- 將黃色導線連接到大於本機保險絲額定容量的未佔用的汽車電路上。若將本機和其它立體聲裝置相互串聯，所連接的汽車電路容量必須大於各組成機保險絲容量的總和。若沒有與本機保險絲額定容量一樣大的汽車電路可資利用，可將本機直接連接到電池上。若無適當的汽車電路可用於連接本機，請將本機連接到大於本機保險絲容量的汽車電路上。這樣，若本機的保險絲燒斷了，也不致於切斷其它電路。

當在點火鑰匙開關沒具輔助位置的汽車里按裝時的警告

請確認在關閉發動機後按壓 (OFF) 鍵兩秒鐘以關閉時鐘顯示。
當您短暫按壓 (OFF) 鍵，時鐘顯示將不能關閉並且將引起電池消耗。

頻率選擇開關

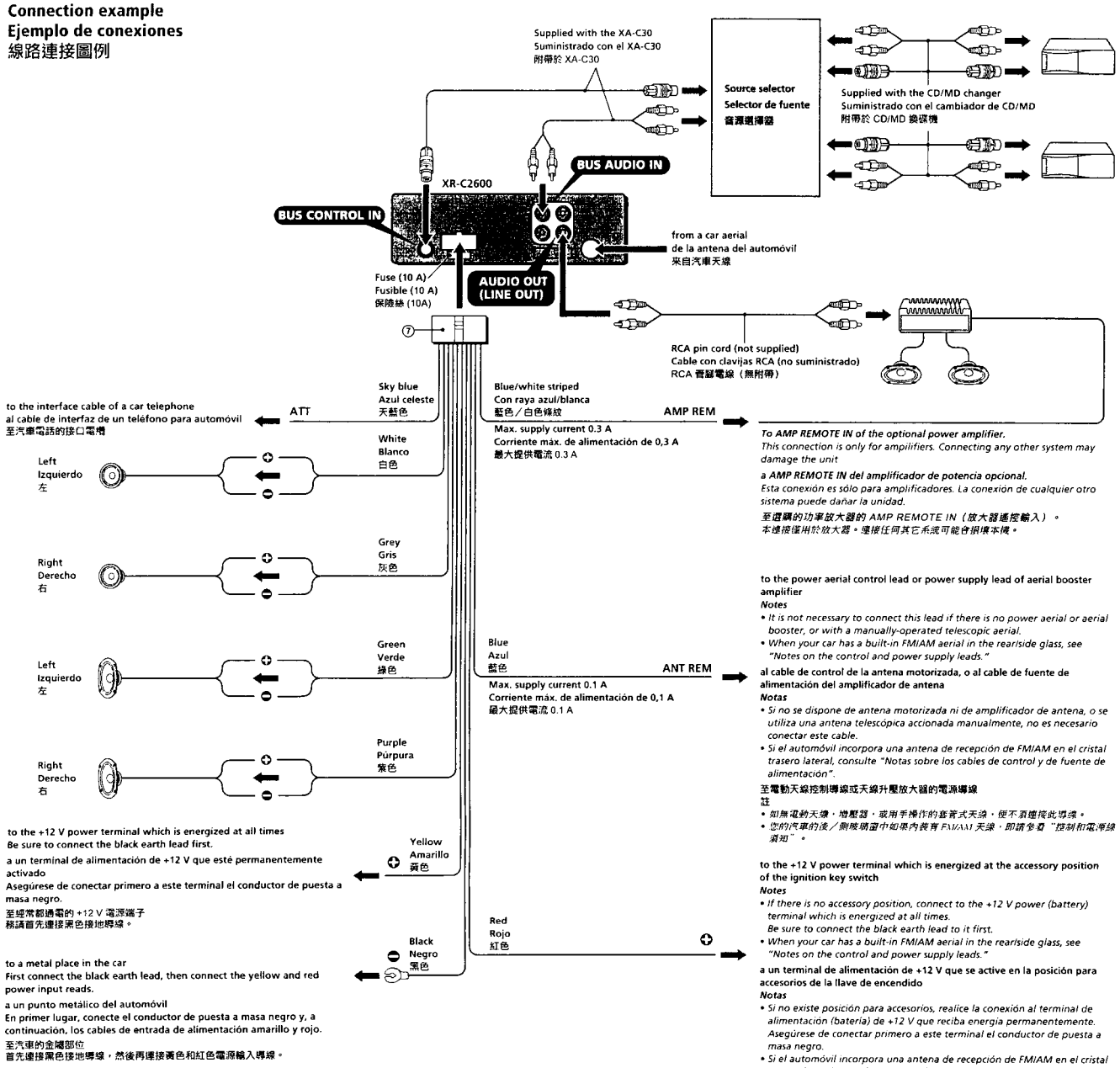
AM (FM) 調諧間隔在出廠前被設定在 9 K (50 K) 位置上。若貴國的頻率分配系統是以 10 KHz (200 KHz) 間隔為基礎的，連接前，請將本機底部上的開關設定在 10 K (200 K) 位置上。

註
改變開關位置時，請一定在連接好機器後按下復位鍵。

復位鍵

當安裝和連接完成後，務請用圓珠筆等按壓復位鍵。

Connection example
Ejemplo de conexiones
線路連接圖例


Supplied with the XA-C30
Suministrado con el XA-C30
附帶於 XA-C30
Source selector
Selector de fuente
音源選擇器
Supplied with the CD/MD changer
Suministrado con el cambiador de CD/MD
附帶於 CD/MD 換碟機
XR-C2600
BUS AUDIO IN
BUS CONTROL IN
from a car aerial
de la antena del automóvil
來自汽車天線
Fuse (10 A)
Fusible (10 A)
保險絲 (10A)
AUDIO OUT
(LINE OUT)
RCA pin cord (not supplied)
Cable con clavijas RCA (no suministrado)
RCA 音頻電線（無附帶）
to the interface cable of a car telephone
al cable de interfaz de un teléfono para automóvil
至汽車電話的接口電纜
ATT
Sky blue
Azul celeste
天藍色
Blue/white striped
Con raya azul/blanca
藍色／白色條紋
AMP REM
Max. supply current 0.3 A
Corriente máx. de alimentación de 0,3 A
最大提供電流 0.3 A
Left
Izquierdo
左
White
Blanco
白色
Right
Derecho
右
Grey
Gris
灰色
Left
Izquierdo
左
Green
Verde
綠色
Blue
Azul
藍色
ANT REM
Max. supply current 0.1 A
Corriente máx. de alimentación de 0,1 A
最大提供電流 0.1 A
Right
Derecho
右
Purple
Púrpura
紫色
to the +12 V power terminal which is energized at all times
Be sure to connect the black earth lead first.
a un terminal de alimentación de +12 V que esté permanentemente activado
Asegúrese de conectar primero a este terminal el conductor de puesta a masa negro.
至經常都通電的 +12 V 電源端子
務請首先連接黑色接地導線。
Yellow
Amarillo
黃色
to a metal place in the car
First connect the black earth lead, then connect the yellow and red power input reads.
a un punto metálico del automóvil
En primer lugar, conecte el conductor de puesta a masa negro y, a continuación, los cables de entrada de alimentación amarillo y rojo.
至汽車的金屬部位
首先連接黑色接地導線，然後再連接黃色和紅色電源輸入導線。
Black
Negro
黑色
Red
Rojo
紅色
To AMP REMOTE IN of the optional power amplifier.
This connection is only for amplifiers. Connecting any other system may damage the unit
a AMP REMOTE IN del amplificador de potencia opcional.
Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.
至選購的功率放大器的 AMP REMOTE IN（放大器遙控輸入）。
本連接僅用於放大器。連接任何其它系統可能會損壞本機。
to the power aerial control lead or power supply lead of aerial booster amplifier
Notes
• It is not necessary to connect this lead if there is no power aerial or aerial booster, or with a manually-operated telescopic aerial.
• When your car has a built-in FM/AM aerial in the rear/side glass, see "Notes on the control and power supply leads."
al cable de control de la antena motorizada, o al cable de fuente de alimentación del amplificador de antena
Notas
• Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no es necesario conectar este cable.
• Si el automóvil incorpora una antena de recepción de FM/AM en el cristal trasero lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".
至電動天線控制導線或天線升壓放大器的電源導線
註
• 如無電動天線，增壓器，或用手操作的套筒式天線，便不須連接此導線。
• 您的汽車的後／側玻璃窗中如果內裝有 FM/AM 天線，即請參看 "控制和電源線須知"。
to the +12 V power terminal which is energized at the accessory position of the ignition key switch
Notes
• If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times.
Be sure to connect the black earth lead to it first.
• When your car has a built-in FM/AM aerial in the rear/side glass, see "Notes on the control and power supply leads."
a un terminal de alimentación de +12 V que se active en la posición para accesorios de la llave de encendido
Notas
• Si no existe posición para accesorios, realice la conexión al terminal de alimentación (batería) de +12 V que reciba energía permanentemente. Asegúrese de conectar primero a este terminal el conductor de puesta a masa negro.
• Si el automóvil incorpora una antena de recepción de FM/AM en el cristal trasero/lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".
至在點火鑰匙的輔助位置上通電的 +12 V 電源端子
註
• 若沒有輔助位置，則請連接至常時通電的 +12 V 電源（電池）端子。
務請首先將黑色接地導線與其連接。
• 您的汽車的後／側玻璃窗中如果內裝有 FM/AM 天線，即請參看 "控制和電源線須知"。

Notes on the control and power supply leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the unit.*
- *When your car has a built-in FM/AM aerial in the rear/side glass, it is necessary to connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Be sure to connect passive speakers to these terminals.*

Notas sobre los cables de control y de fuente de alimentación
- *El conductor de control de la antena motorizada (azul) suministrará + 12 V CC cuando conecte la alimentación de la unidad.*
- *Si se ha instalado una antena de recepción de FM/AM en el cristal trasero lateral del automóvil, es necesario conectar el cable de control de la antena motorizada (azul) o el cable auxiliar de entrada de alimentación (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener información detallada, consulte a su proveedor.*
- *Con esta unidad no podrá emplearse una antena motorizada desprovista de caja de relé.*

Conexión para protección de la memoria
Si conecta el cable de entrada de alimentación amarillo, el circuito de la memoria siempre recibirá alimentación, aunque ponga la llave de encendido en la posición de apagado.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 Ohmios, y con la potencia máxima admisible adecuada, ya que de lo contrario podría dañarlos.*
- *No conecte los terminales del sistema de altavoces al chasis del automóvil, ni los del altavoz izquierdo a los del derecho.*
- *No intente conectar los altavoces en paralelo.*
- *No conecte altavoces activos (con amplificadores incorporados) a los terminales de altavoces de la unidad. Si lo hiciese, podría dañar tales altavoces. Por lo tanto, cerciórese de conectar altavoces pasivos a estos terminales.*

控制和電源線須知
- *當您打開機器時，電動天線的控制導線（藍色）即可發生12V直流電。*
- *您的汽車的後／側玻璃窗中如果內裝有 FM/AM 天線，即請把電動天線控制導線（藍色）或輔助的電源輸入導線（紅色）連接到現有的天線增壓器的電源端子上。詳細內容，請洽詢交易店。*
- *本機不能使用不具備盤電箱的電動天線。*

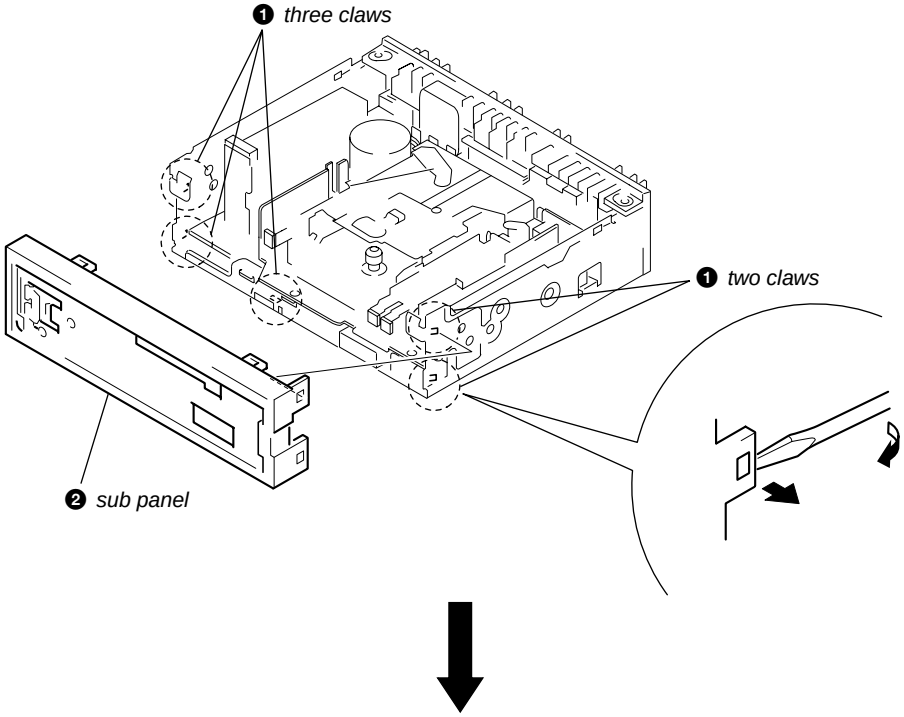
保持記憶功能的連接法
當連接好黃色電源輸入導線時，即使汽車發動帳點火鑰匙被轉在電源切斷之處，電源仍繼續將電流供給記憶功能用電路，以保持所記憶著的數據。

連接揚聲器須知
- *連接揚聲器電線之前，請先關掉本機電源。*
- *請使用 4 至 8 Ω 阻抗並且具有足夠功率的揚聲器。否則會損壞揚聲器。*
- *不可將揚聲器的端子連接至汽車底盤，也不可將左揚聲器和右揚聲器相連接。*
- *不可並聯揚聲器。*
- *不可連接有源揚聲器（內裝有放大器者）至本機的揚聲器端子。否則會損壞有源揚聲器。因此，這些端子只能連接無源揚聲器。*

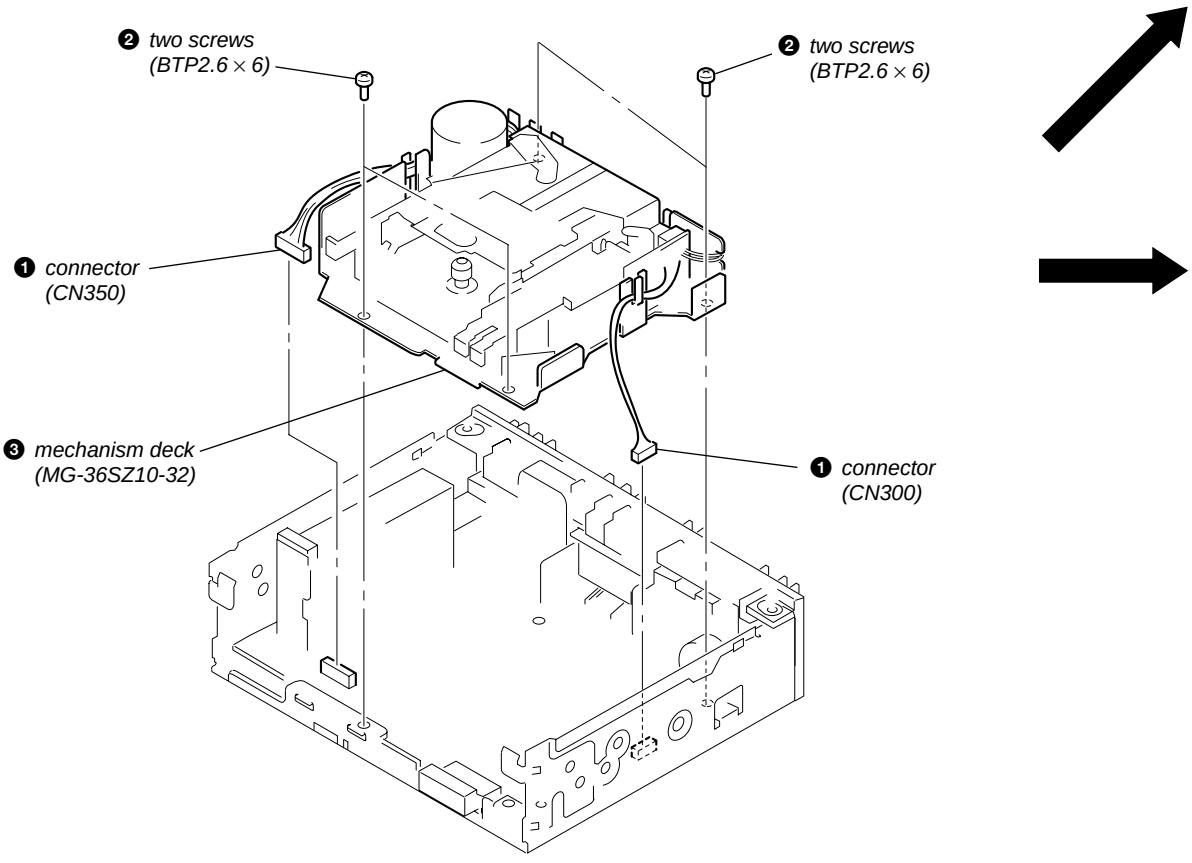
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

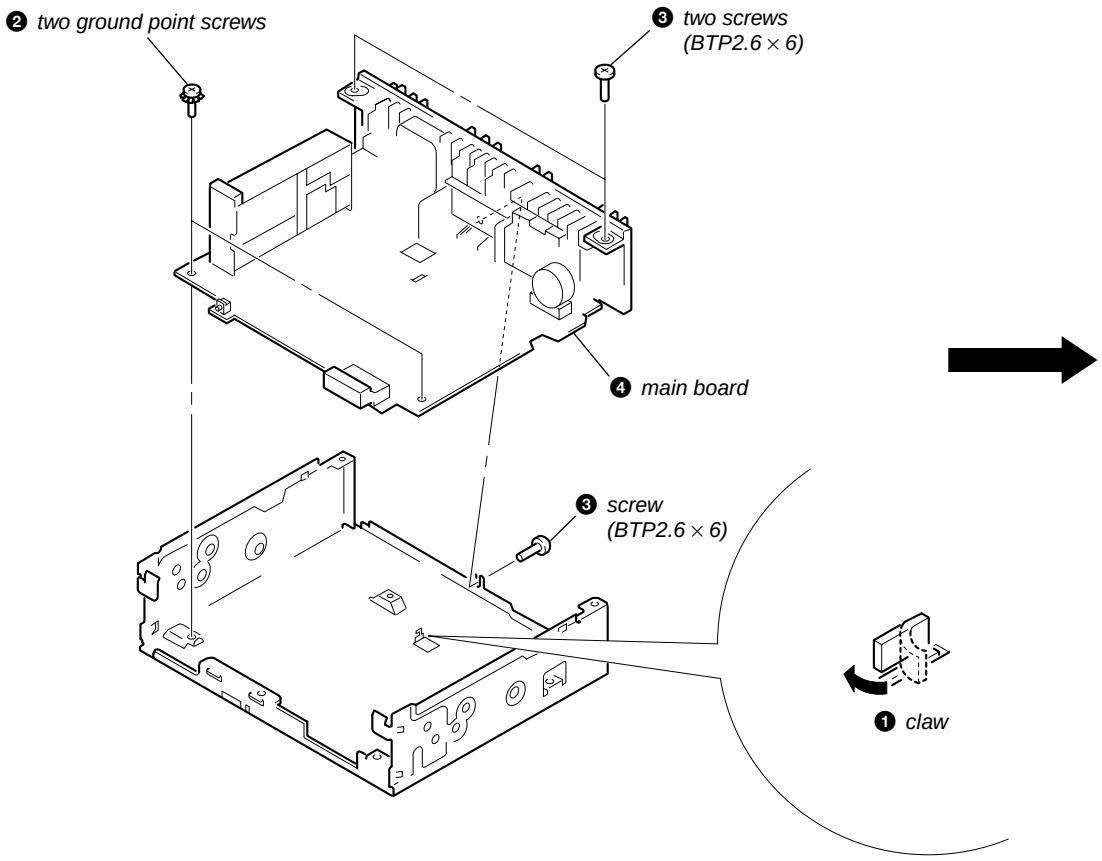
SUB PANEL



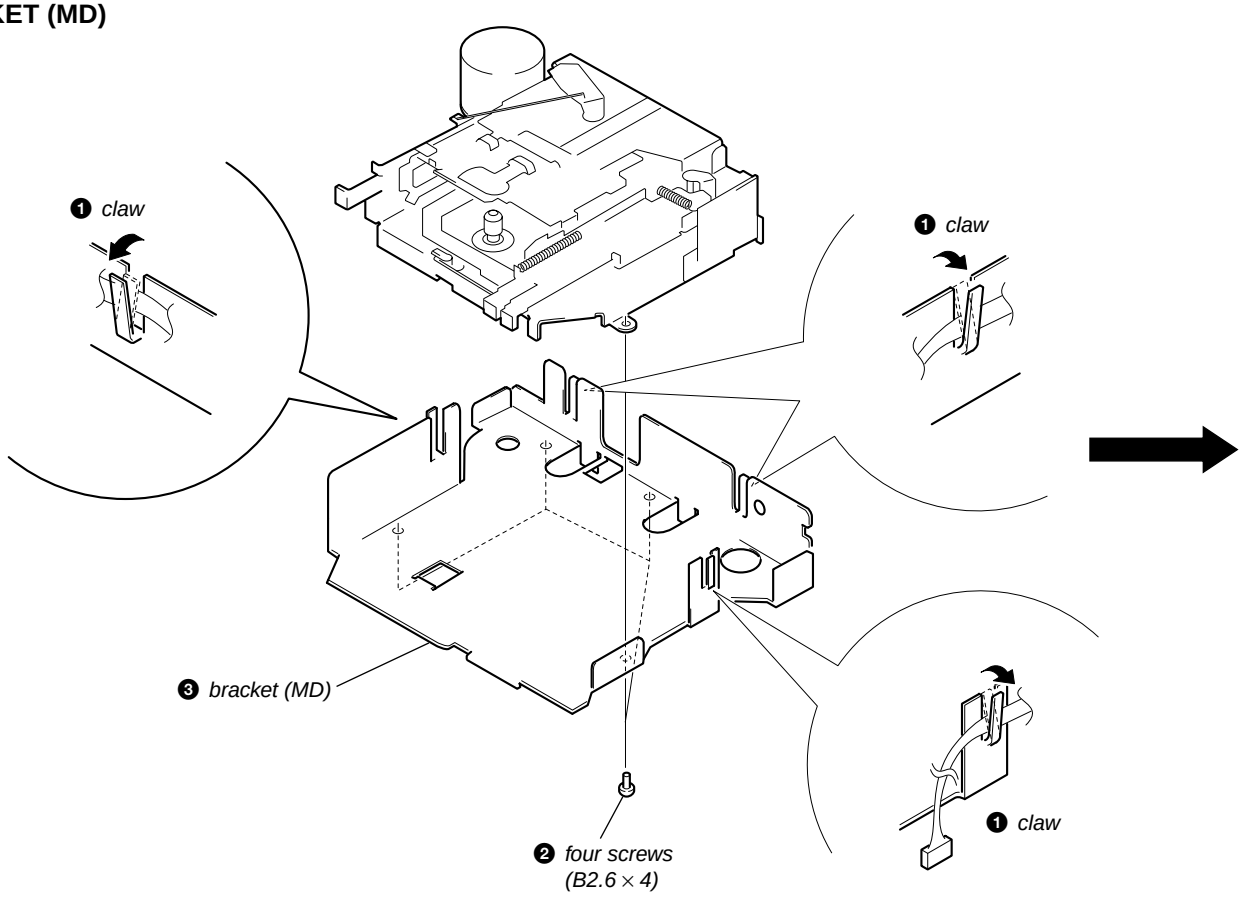
MECHANISM DECK (MG-36SZ10-32)



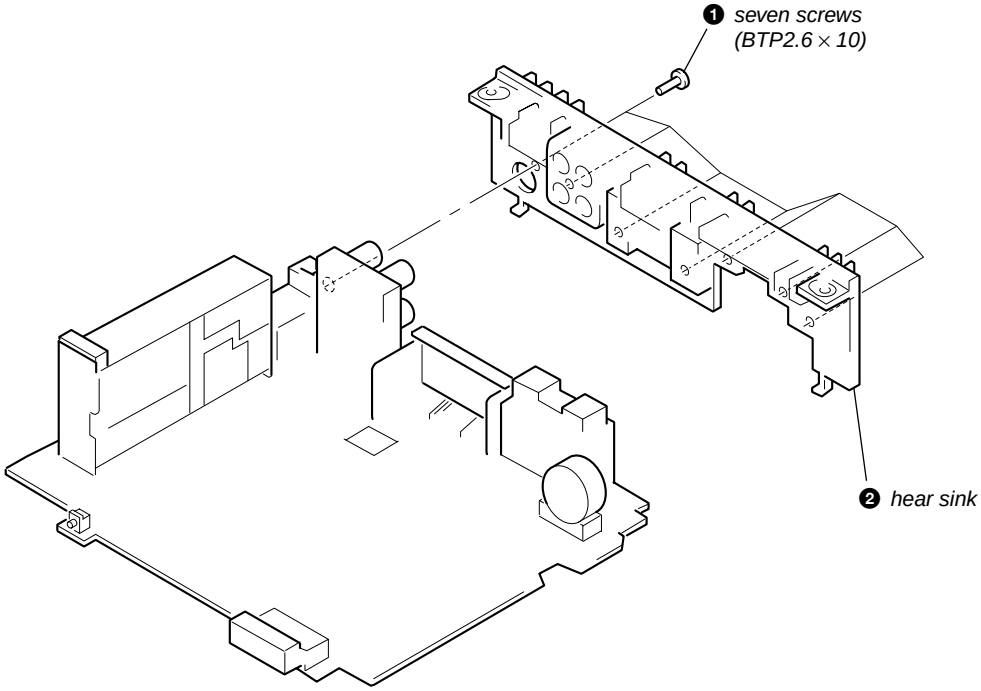
MAIN BOARD



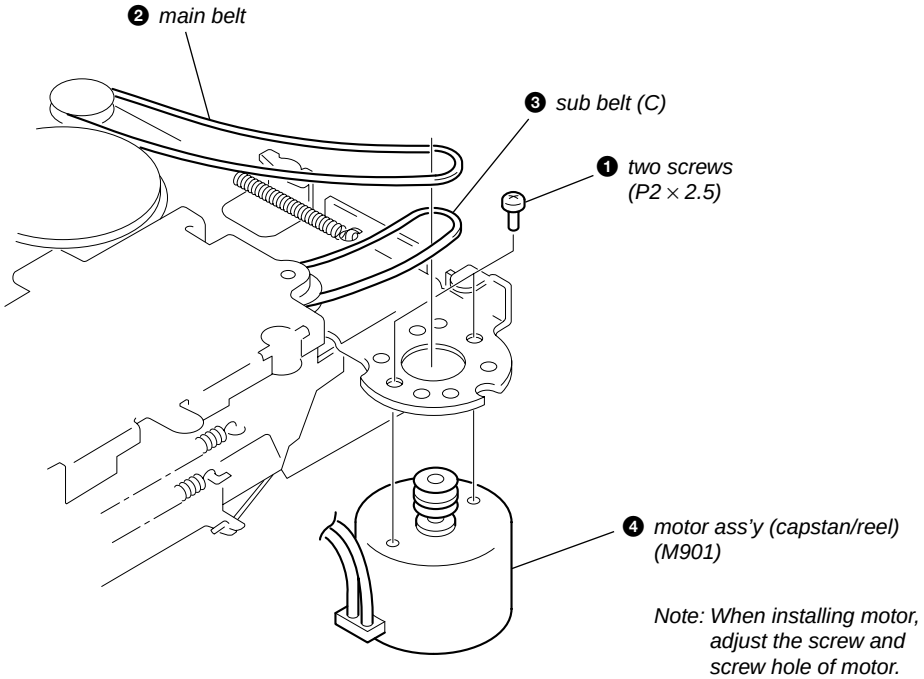
BRACKET (MD)



HEAT SINK



MOTOR ASS'Y (CAPSTAN/REEL) (M901)



Note: When installing motor, adjust the screw and screw hole of motor.

SECTION 3
MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head pinch roller
   rubber belt capstan
   idler
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. The adjustments should be performed with the power supply voltage (14.4 V) unless otherwise noted.

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	2.46 – 5.39 mN•m 25 – 55 g•cm (0.35 – 0.76 oz•inch)
Forward Back Tension	CQ-102C	0.15 – 0.39 mN•m 1.5 – 4 g•cm (0.02 – 0.06 oz•inch)
Reverse	CQ-102RC	2.46 – 5.39 mN•m 25 – 55 g•cm (0.35 – 0.76 oz•inch)
Reverse Back Tension	CQ-102RC	0.15 – 0.39 mN•m 1.5 – 4 g•cm (0.02 – 0.06 oz•inch)
FF, REW	CQ-201B	4.91 – 14.70 mN•m 50 – 150 g•cm (0.69 – 2.08 oz•inch)

• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	5.89 mN•m more than 60 g (more than 2.12 oz)
Reverse	CQ-403R	

SECTION 4
ELECTRICAL ADJUSTMENTS

TEST MODE

This set have the test mode function. In the test mode, FM Auto Seek/Stop Level and AM Auto Seek/Stop Level Check can be performed easier than it in ordinary procedure.

<Set the Test Mode>

1. Turn ON the regulated power supply. (All LEDs on the set lights up, and the clock is displayed.)
   Note: Press the [OFF] button, if the clock is not displayed.
2. Push the presett [4] button.
3. Push the preset [5] button.
4. Press the preset [1] button for more than two seconds.
5. Then the display indicates all lights, the test mode is set.

<Release the Test mode>

Push the [OFF] button.

See the adjustment location from on page 13 for the adjustment.

TAPE DECK SECTION 0 dB= 0.775 V

1. The adjustments should be performed in the order given in this service manual.
2. The adjustments should be performed for both L-CH and R-CH.

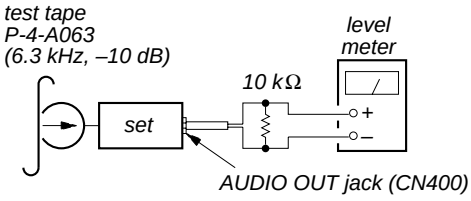
Test Tape

Type	Signal	Used for
P-4-A063	6.3 kHz, –10 dB	head azimuth adjustment
WS-48A	3 kHz, 0 dB	tape speed adjustment

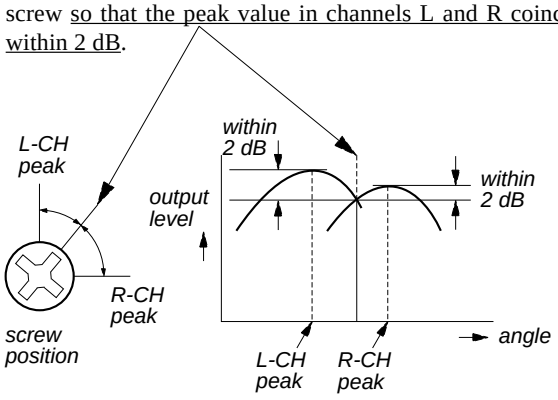
PB Head Azimuth Adjustment

Procedure:

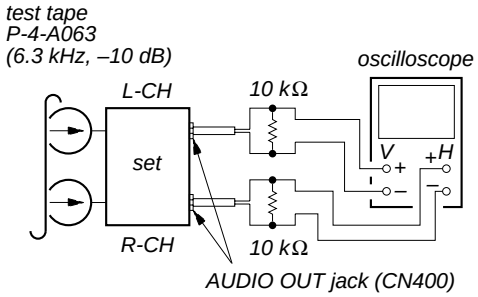
1. Put the set into the FWD PB mode.

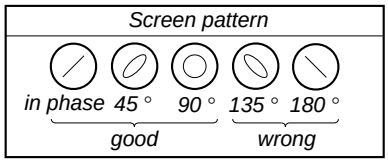


2. Turn the screw and check the output peak value. Adjust the screw so that the peak value in channels L and R coincides within 2 dB.



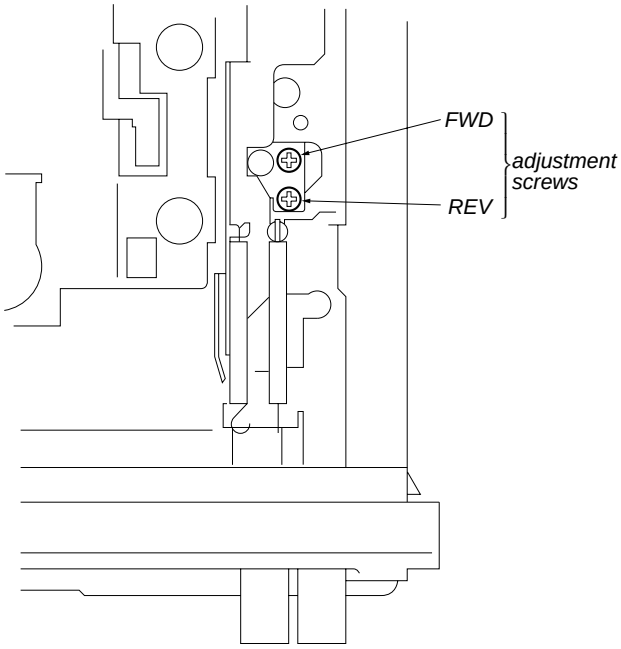
3. Check the phase in the FWD PB mode.





4. Repeat the above adjustment for the REV PB mode.
5. Check that output level difference between FWD PB mode and REV PB mode is within 4 dB.

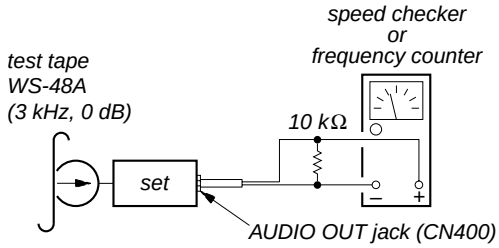
Adjustment Location: PB head



See the adjustment location from on page 13 for the adjustment.

Tape Speed Adjustment

Setting:



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the speed checker or frequency counter becomes in specification.

Specification: Constant speed

Speed checker	Frequency counter
–2 to +3%	2,940 to 3,090 Hz

Adjustment Location: See page 13.

TUNER SECTION

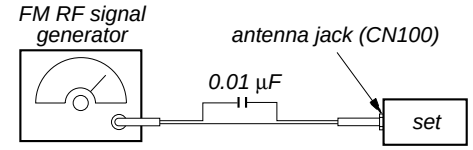
0 dB=1 µV

Cautions during repair
When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

Note:
Adjust the tuner section in the sequence shown below.
1. FM Auto Seek/Stop Level Adjustment
2. FM Stereo Separation Adjustment
3. AM Auto Seek/Stop Level Check

FM Auto Seek/Stop Level Adjustment

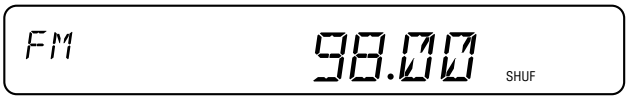
Setting:
SOURCE button : FM
FREQUENCY SELECT switch : FM 50 k



Carrier frequency : 98.0 MHz
Output level : 22 dB (12.6 µV)
Mode : mono
Modulation : 1 kHz, 22.5 kHz deviation (30%)

Procedure:
1. Set to the test mode. (See page 10)
2. Push the SOURCE button and set to FM.

Display



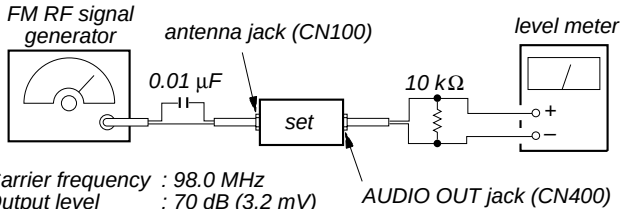
3. Adjust with the volume RV2 on TU100 so that the "FM" indication turns to "FM0" indication on the display window. But, in case of already indicated "FM0", turn the RV2 so that put out light "0" indication and adjustment.

Display

Adjustment Location: See page 13.

FM Stereo Separation Adjustment

Setting:
SOURCE button : FM
FREQUENCY SELECT switch : FM 50 k



Carrier frequency : 98.0 MHz
Output level : 70 dB (3.2 mV)
Mode : stereo
Modulation : main: 1 kHz, 33.75 kHz deviation (45%)
sub: 1 kHz, 33.75 kHz deviation (45%)
19 kHz pilot: 7.5 kHz deviation (10%)

AUDIO OUT jack (CN400)

Procedure:

FM Stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV1 on TU100 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV1 on TU100 for minimum reading.

L-CH Stereo separation: Ⓐ-Ⓑ
R-CH Stereo separation: Ⓒ-Ⓓ
The separations of both channels should be equal.

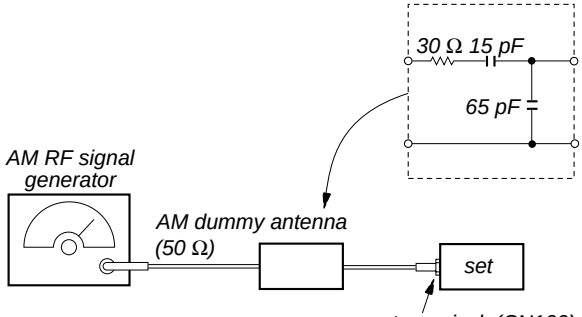
Specification: Separation more than 26 dB

Adjustment Location: See page 13.

AM Auto Seek/Stop Level Check

Make this check after "FM Auto Seek/Stop Level Adjustment".

Setting:
SOURCE → MODE button : AM
FREQUENCY SELECT switch: AM 9 k



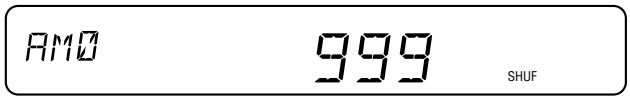
Carrier frequency : 999 kHz
30% amplitude modulation by 1 kHz signal
Output level : 30 dB (44.7 µV) ± 9dB

Procedure:
1. Set to the test mode. (See page 10)
2. Push the SOURCE button and set to FM.
3. Push the MODE button and set to AM.

Display

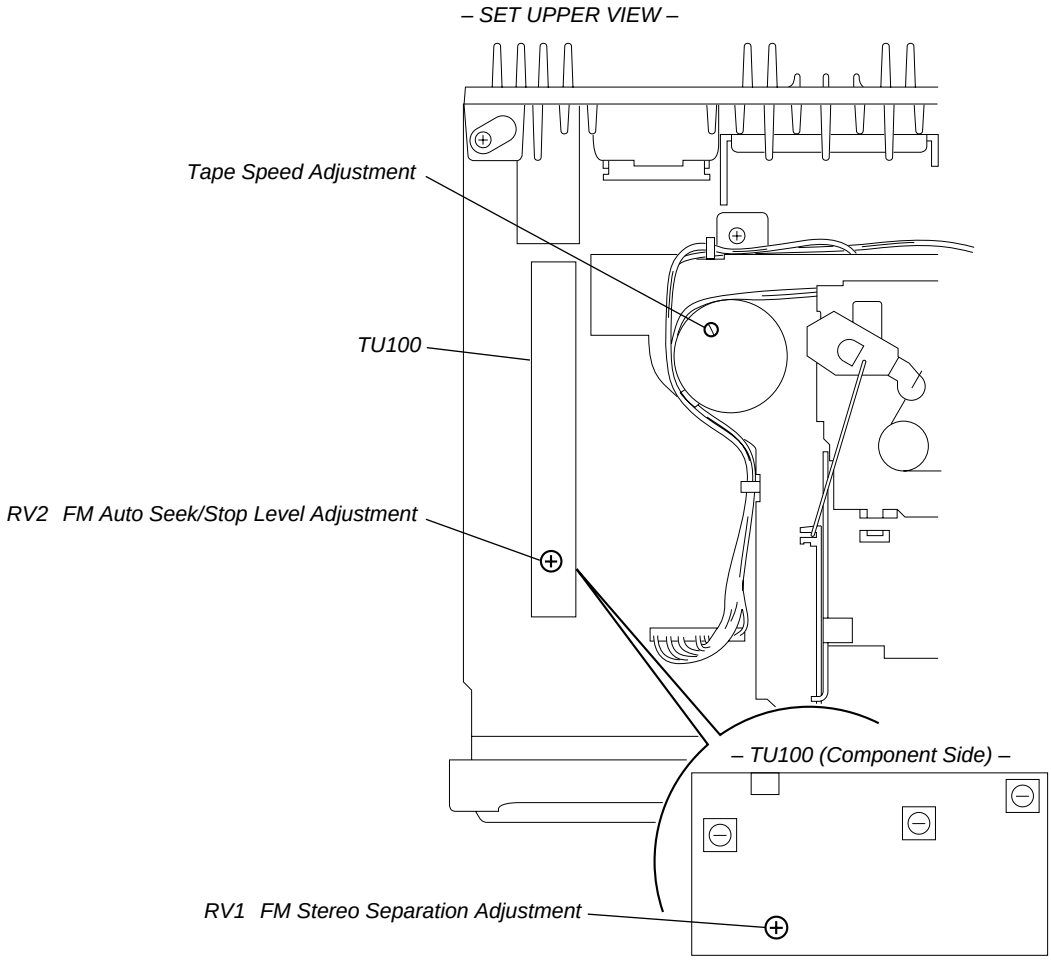
4. Check that the "AM" indication turns to "AM0" indication on the display window.

Display



Adjustment Location: See page 13.

Adjustment Location:


– SET UPPER VIEW –
Tape Speed Adjustment
TU100
RV2 FM Auto Seek/Stop Level Adjustment
– TU100 (Component Side) –
RV1 FM Stereo Separation Adjustment

SECTION 5
DIAGRAMS

5-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

- ⟜——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- B + : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
  〈〈 〉〉 : TAPE PLAY
  ∗ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  ⇨ : TAPE PLAY
  ⇨ : BUS AUDIO IN

- **Semiconductor Location**

Ref. No.	Location
D1	K-8
D2	K-8
D100	D-12
D101	H-12
D102	I-12
D103	I-12
D300	G-5
D400	E-8
D500	D-8
D501	D-9
D502	C-9
D503	D-8
D504	D-8
D505	D-7
D506	C-7
D507	C-7
D600	E-7
D603	E-4
D605	G-3
D606	L-3
D607	K-3
D608	K-3
D609	K-3
D610	L-6
D611	L-6
D612	L-6
D613	L-3
D614	K-13
D615	E-4
D616	E-5
D617	F-7
D618	E-7
D700	D-4
D702	E-4
D703	F-5
D705	G-7
D706	J-4
D707	J-5
D708	E-4
D709	J-12
D800	D-3
D801	E-3
D802	E-3
D804	E-3
IC1	I-7
IC2	I-9
IC3	K-13
IC130	F-12
IC300	I-3
IC400	F-10
IC500	B-8
IC800	F-3
Q1	K-9
Q3	I-5
Q100	E-12
Q101	I-12
Q102	H-11
Q103	I-13
Q104	H-12
Q105	I-12
Q106	H-12
Q400	C-11
Q401	D-12
Q402	D-11
Q403	D-12
Q600	E-8
Q601	F-8
Q604	G-2
Q605	G-4
Q700	F-7
Q701	F-5
Q702	G-5
Q703	I-5
Q704	F-4
Q705	F-5
Q706	G-4
Q707	J-4
Q708	K-6
Q709	K-12
Q710	K-11
Q711	I-5

5-2. PRINTED WIRING BOARDS – MAIN Board –

【 MAIN BOARD 】

CN800 BUS CONTROL IN (FOR SONY BUS) (FRONT VIEW)

CN400 BUS AUDIO IN / AUDIO OUT (LINE OUT)

CN100 FM/AM ANTENNA

TO CN700

WHT/BLK FRONT LCH (–)
WHT FRONT LCH (+)
GRN/BLK REAR LCH (–)
GRN REAR LCH (+)
VIO/BLK REAR RCH (–)
VIO REAR RCH (+)
GRY/BLK FRONT RCH (–)
GRY FRONT RCH (+)
BLU/WHT AMP REM
BLU ANT REM
RED ACC
YEL BATT
BLK GND

HP901 (PLAYBACK HEAD)

TO CN350

M901 (CAPSTAN/REEL)
S901 (DIRECTION) REV ↓ FWD
S902 (FF/REW) (OFF : PLAYBACK)
S903 (TAPE DETECT) (ON : TAPE IN)

S3 (FREQUENCY SELECT) AM10K/FM200K ↓ AM9K/FM50K

S2 RESET

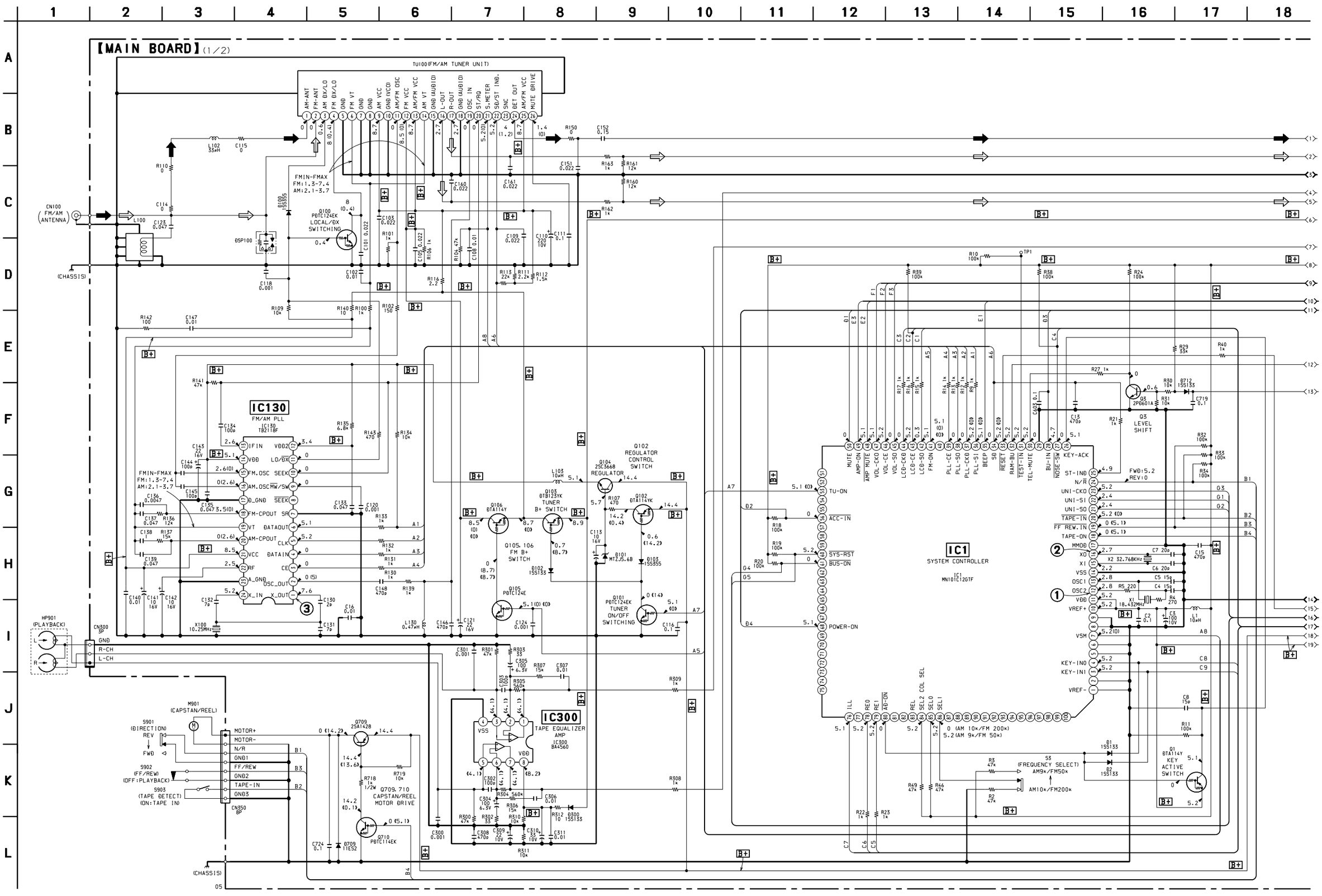
TU100 FM/AM TUNER UNIT

(CHASSIS)

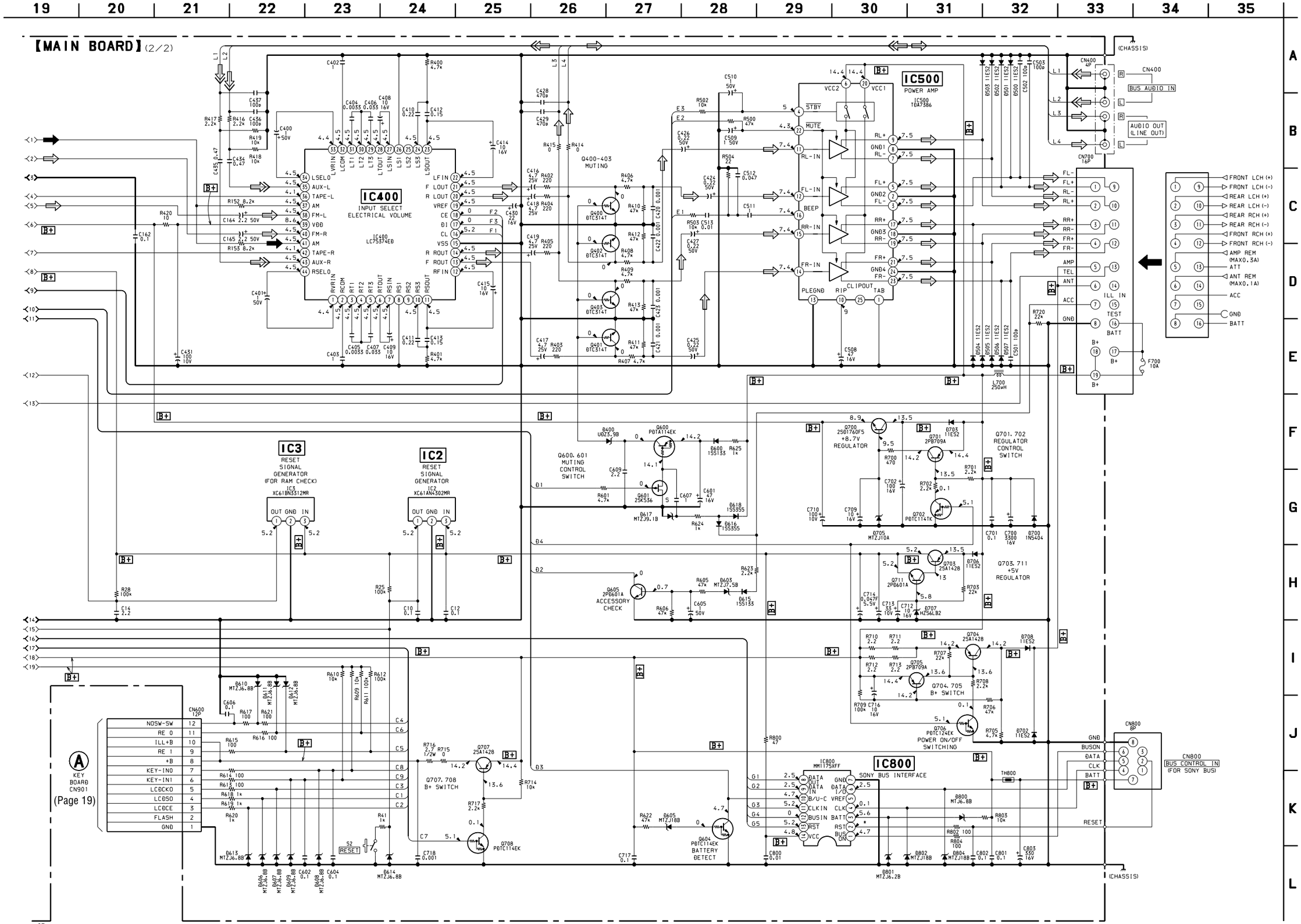
A KEY BOARD CN901 (Page 18)

5-3. SCHEMATIC DIAGRAM – MAIN Board (1/2) –

• See page 20 for waveforms. • See page 20 for IC Block Diagram.



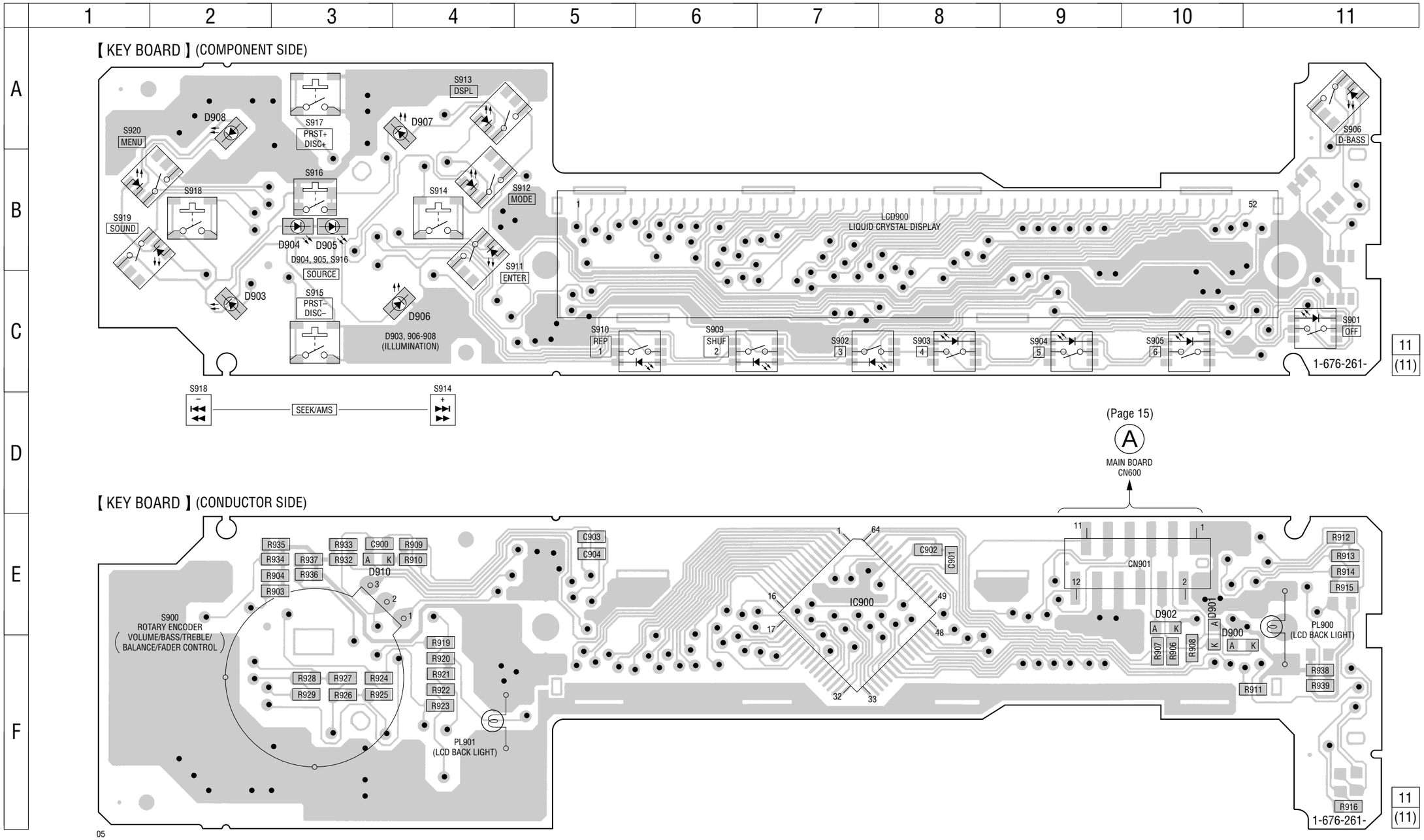
5-4. SCHEMATIC DIAGRAM – MAIN Board (2/2) – • See page 20 for IC Block Diagrams.



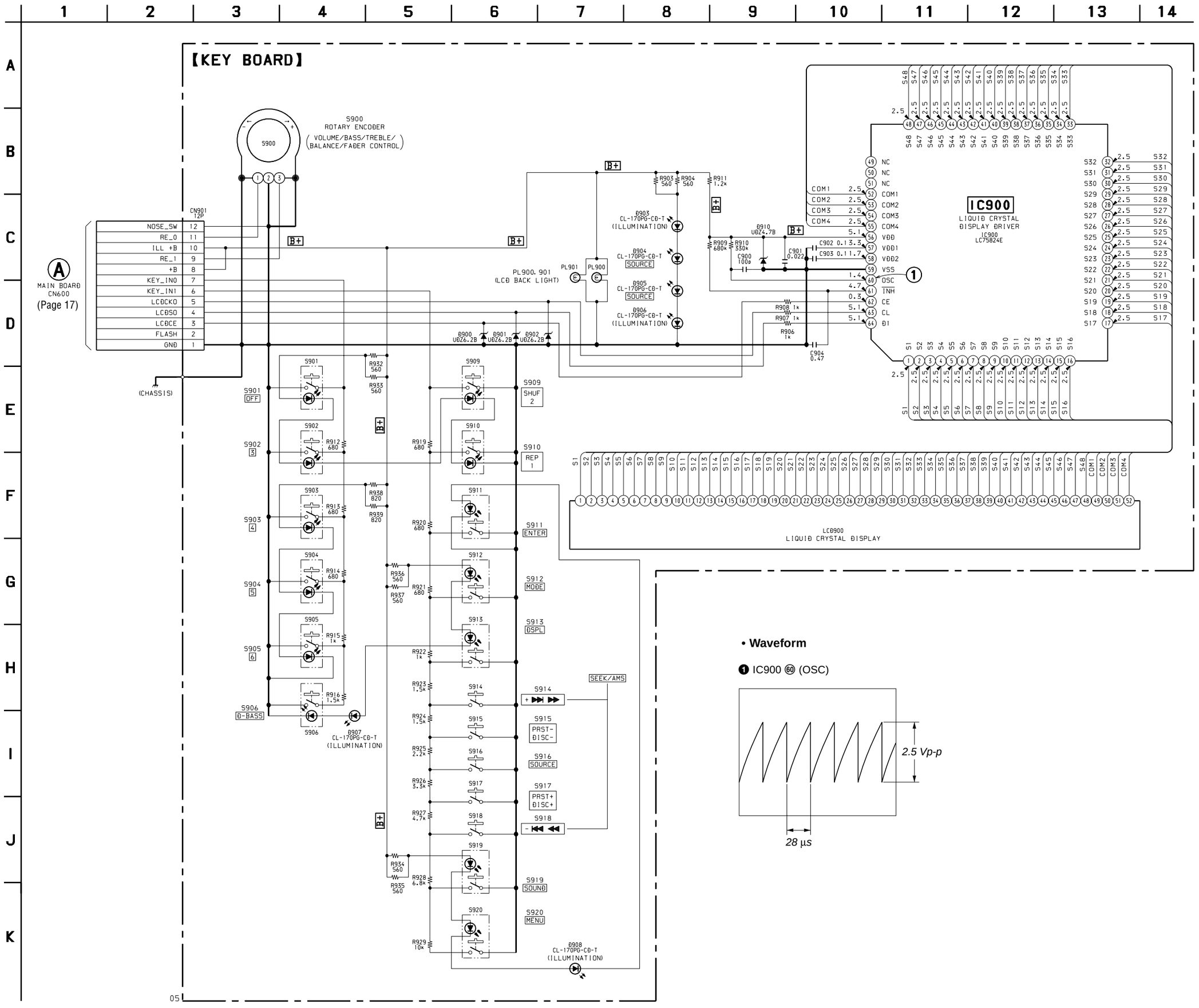
5-5. PRINTED WIRING BOARD – KEY Board –

- **Semiconductor Location**

Ref. No.	Location
D900	E-10
D901	E-10
D902	E-10
D903	C-2
D904	B-3
D905	B-3
D906	C-4
D907	A-4
D908	A-2
D910	E-3
IC900	E-7



5-6. SCHEMATIC DIAGRAM – KEY Board –

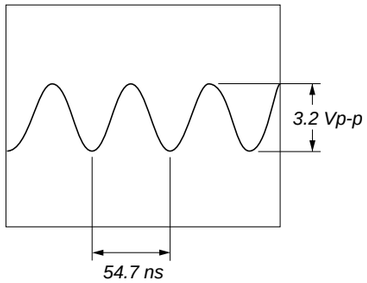


• **Waveform**

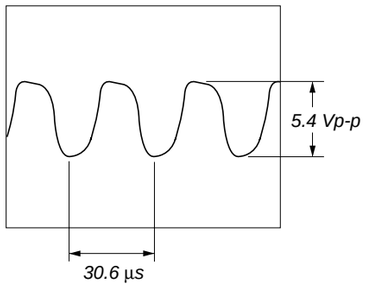
❶ IC900 ⑥⓪ (OSC)

• Waveforms
– MAIN Board –

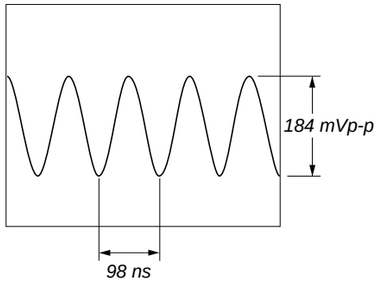
❶ IC1 ⑫ (OSC2)



❷ IC1 ⑯ (XO)

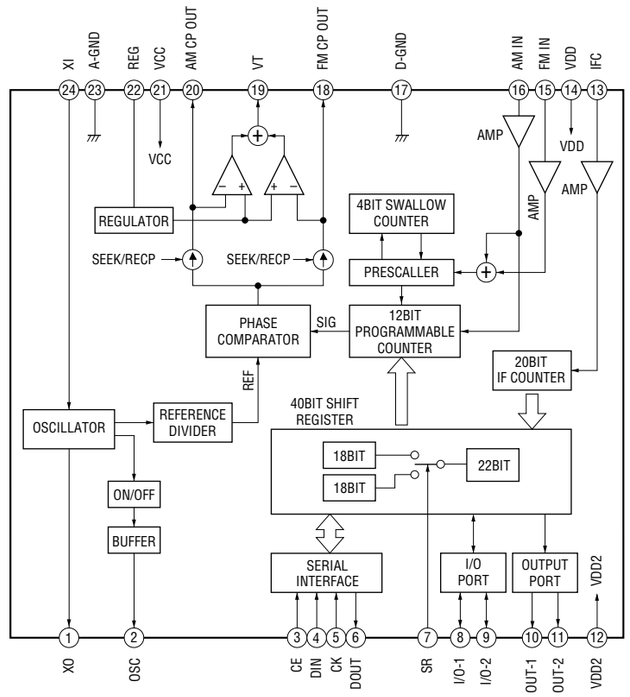


❸ IC130 ① (X OUT) (FM/AM Mode)

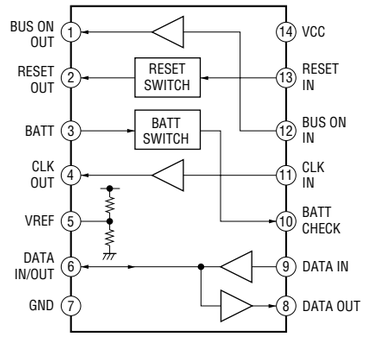


• IC Block Diagrams
– MAIN Board –

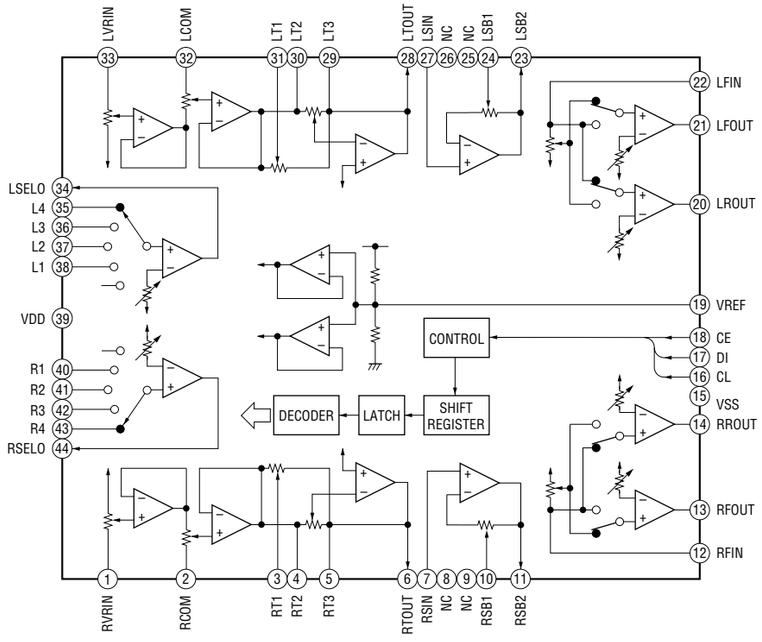
IC130 TB2118F-EL-S



IC800 MM1175XFF



IC400 LC75374E



5-7. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC1 MN101C12GTF (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	VREF–	I	Reference voltage (0V) input terminal (for A/D converter)
2	—	I	Not used (fixed at "L")
3	KEY-IN1	I	Key input terminal (A/D input) S909 to S920 (SHUF 2, REP 1, ENTER, MODE, DSPL, SEEK/AMS + ▶▶I ▶▶, PRST/DISC –, SOURCE, DISC/PRST +, SEEK/AMS – I◀◀ ◀◀, SOUND, MENU keys input)
4	KEY-IN0	I	Key input terminal (A/D input) S901 to S906 (OFF, 3, 4, 5, 6, D-BASS keys input)
5, 6	—	I	Not used (fixed at "L")
7	VSM	I	FM and AM signal meter voltage detection signal input from the FM/AM tuner unit (TU100) (A/D input)
8, 9	—	I	Not used (fixed at "L")
10	VREF+	I	Reference voltage (+5V) input terminal (for A/D converter)
11	VDD	—	Power supply terminal (+5V)
12	OSC2	O	Main system clock output terminal (18.432 MHz)
13	OSC1	I	Main system clock input terminal (18.432 MHz)
14	VSS	—	Ground terminal
15	XI	I	Sub system clock input terminal (32.768 kHz)
16	XO	O	Sub system clock output terminal (32.768 kHz)
17	MMOD	I	Not used (fixed at "L")
18	TAPE-ON	O	Capstan/reel motor (M901) drive signal output terminal "H": motor on
19	$\overline{\text{FF REW. IN}}$	I	FF/REW detection signal input terminal "L": FF/REW mode, "H": play mode
20	$\overline{\text{TAPE-IN}}$	I	Tape in detection signal input terminal "L": tape in
21	UNI-SO	O	Serial data output to the SONY bus interface (IC800)
22	UNI-SI	I	Serial data input from the SONY bus interface (IC800)
23	UNI-CKO	O	Serial data transfer clock signal output to the SONY bus interface (IC800)
24	N/$\overline{\text{R}}$	I	Tape detection signal input terminal "L": reverse side, "H": forward side
25	ST-IND	I/O	FM stereo broadcasting detection signal input from the FM/AM tuner unit (TU100), or forced monaural control signal output to the FM/AM tuner unit (TU100) "L" is input in the FM stereo mode, or "L" is output in the forced monaural mode
26	KEY-ACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of "H"
27	$\overline{\text{NOSE-SW}}$	I	Front panel block remove/attach detection signal input terminal "L": front panel is attached, "H": front panel is removed
28	BU-IN	I	Battery detection signal input from the SONY bus interface (IC800) and battery detect circuit "L" is input at low voltage
29	—	I	Not used (fixed at "L")
30	TEL-MUTE	I	Telephone muting signal input terminal At input of "H", the signal is attenuated by –20 dB
31	$\overline{\text{TEST-IN}}$	I	Setting terminal for the test mode "L": test mode, Normally: fixed at "H"
32	RAM-BU	I	Internal RAM reset detection signal input from the XC61BN3312MR (IC3) Input terminal to check that RAM data are not destroyed due to low voltage This checking is made within 50 msec after reset
33	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC2) and reset switch (S2) "L": reset "L" is input for several 100 msec after power on, then it changes to "H"
34	SD	I	Station detector detection signal input from the FM/AM tuner unit (TU100) Stop level for SEEK, BTM, etc. is determined SD is present at input of "H"
35	BEEP	O	Beep sound drive signal output terminal Not used
36	PLL-SI	I	PLL serial data input from the FM/AM PLL (IC130)
37	PLL-CKO	O	PLL serial data transfer clock signal output to the FM/AM PLL (IC130)
38	PLL-SO	O	PLL serial data output to the FM/AM PLL (IC130)

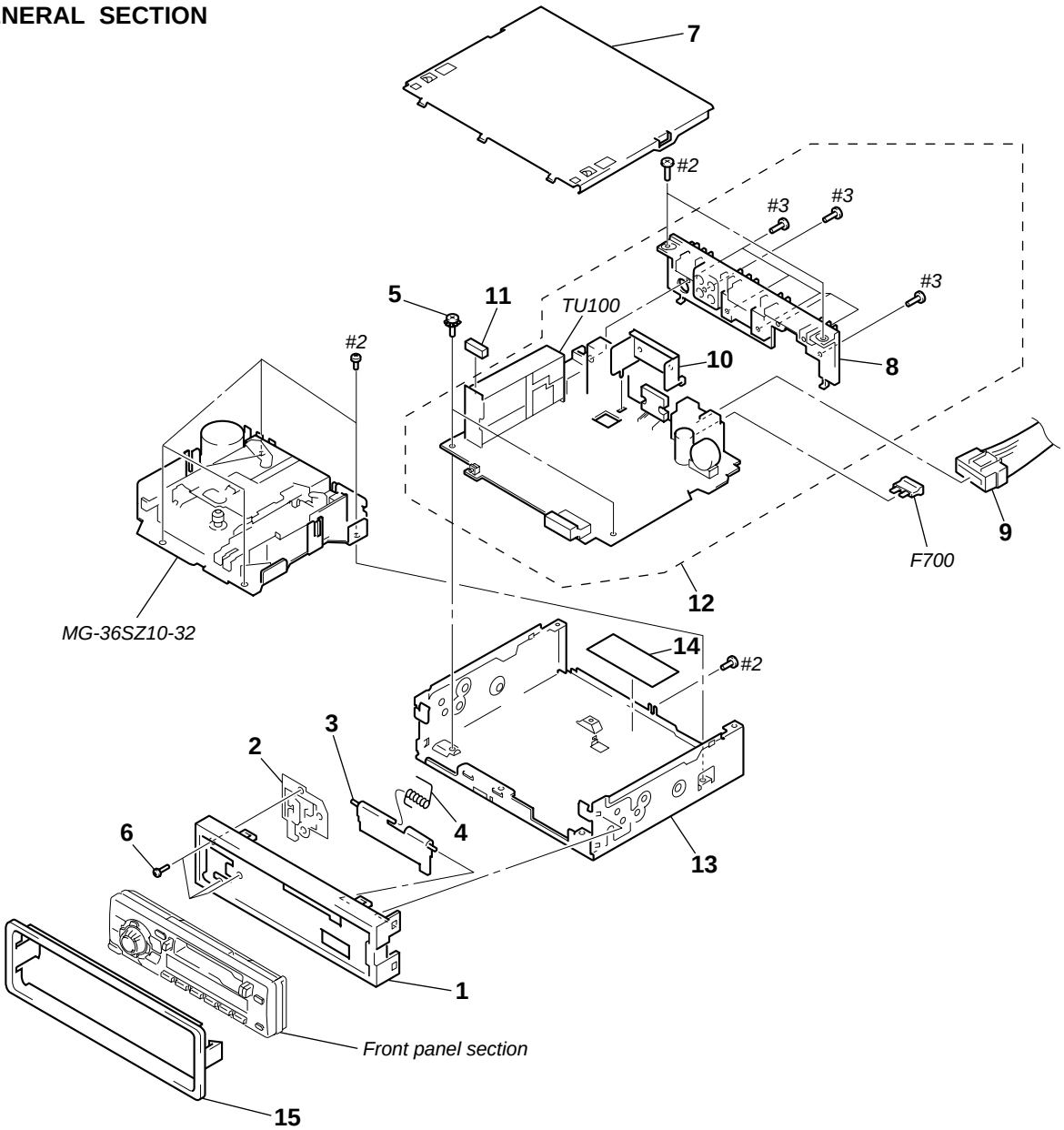
Pin No.	Pin Name	I/O	Description
39	PLL-CE	O	PLL chip enable signal output to the FM/AM PLL (IC130) "H" active
40	—	O	Not used (open)
41	FM-ON	O	FM system power supply on/off control signal output terminal "H": FM power on
42	LCD-SO	O	Serial data output to the liquid crystal display driver (IC900)
43	LCD-CE	O	Chip enable signal output to the liquid crystal display driver (IC900) "H" active
44	LCD-CKO	O	Serial data transfer clock signal output to the liquid crystal display driver (IC900)
45	VOL-SO	O	Serial data output to the electrical volume (IC400)
46	VOL-CE	O	Chip enable signal output to the electrical volume (IC400) "H" active
47	VOL-CKO	O	Bus clock signal output to the electrical volume (IC400)
48	$\overline{\text{AMP-MUTE}}$	O	Muting on/off control signal output to the power amplifier (IC500) "L": muting on "L" is output when the front panel is removed
49	AMP-ON	O	Standby on/off control signal output to the power amplifier (IC500) "L": standby mode, "H": amplifier on "L" is output when the front panel is removed
50	MUTE	O	Audio line muting on/off control signal output terminal "H": muting on
51, 52	—	O	Not used (open)
53	TU-ON	O	Tuner system power supply on/off control signal output terminal "H": tuner power on
54, 55	—	O	Not used (open)
56	$\overline{\text{ACC-IN}}$	I	Accessory detection signal input terminal "L": accessory on
57 to 59	—	O	Not used (open)
60	$\overline{\text{SYS-RST}}$	O	Reset signal output to the SONY bus interface (IC800) "L": reset
61	$\overline{\text{BUS-ON}}$	O	Bus on/off control signal output to the SONY bus interface (IC800) "L": bus on
62 to 67	—	O	Not used (open)
68	POWER-ON	O	Main system power supply on/off control signal output terminal "H": power on "L" is output when the front panel is removed
69 to 75	—	O	Not used (open)
76	ILL	O	Power on/off control signal output of the illumination LED and liquid crystal display driver (IC900) "H": power on
77	—	O	Not used (open)
78	RE0	I	Dial pulse input of the rotary encoder (S900) (for VOLUME/BASS/TREBLE/BALANCE/FADER control)
79	RE1	I	
80	$\overline{\text{AD-ON}}$	O	A/D converter power control signal output terminal When the KEYACK (pin ㉖) that controls reference voltage power for key A/D conversion input is active, "L" is output from this terminal to enable the input
81, 82	—	O	Not used (open)
83	REL	I	Rotation detection signal input from supply reel sensor and take-up reel sensor on the deck mechanism Not used (open)
84	SEL2 COL SEL	I	Destination setting terminal (fixed at "H" in this set)
85	SEL0	I	Destination setting terminal (fixed at "L" in this set)
86	SEL1	I	Frequency select switch (S3) input terminal "L": AM 9 kHz/FM 50 kHz step, "H": AM 10 kHz/FM 200 kHz step
87 to 100	—	O	Not used (open)

SECTION 6
EXPLODED VIEWS

NOTE:

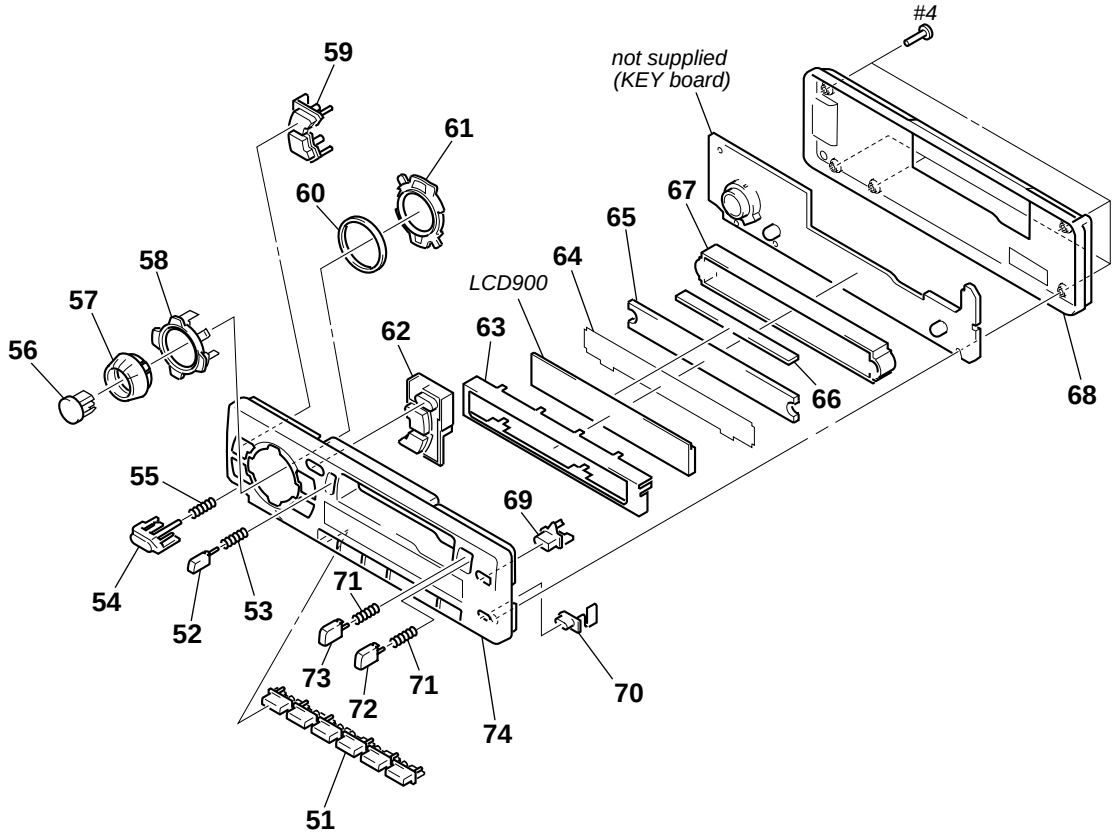
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

(1) GENERAL SECTION



Ref. No.	Part No.	Description	Remark
1	3-041-580-01	PANEL, SUB	
2	X-3367-636-1	LOCK ASSY	
3	3-041-581-01	DOOR, CASSETTE	
4	3-044-125-01	SPRING, TORSION	
5	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
6	3-727-903-01	SCREW (2X5), TAPPING, +B	
* 7	X-3378-167-1	COVER ASSY	
* 8	3-041-577-01	HEAT SINK	
9	1-776-207-31	CORD (WITH CONNECTOR) (POWER)	
* 10	3-041-578-01	BRACKET (IC)	
* 11	3-046-339-01	CUSHION (U)	
* 12	A-3326-392-A	MAIN BOARD, COMPLETE	
* 13	3-041-575-01	CHASSIS	
* 14	3-041-576-01	SHEET, INSULATING	
* 15	3-041-599-01	COLLAR	
F700	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	
TU100	1-693-458-11	TUNER UNIT (FM/AM)	

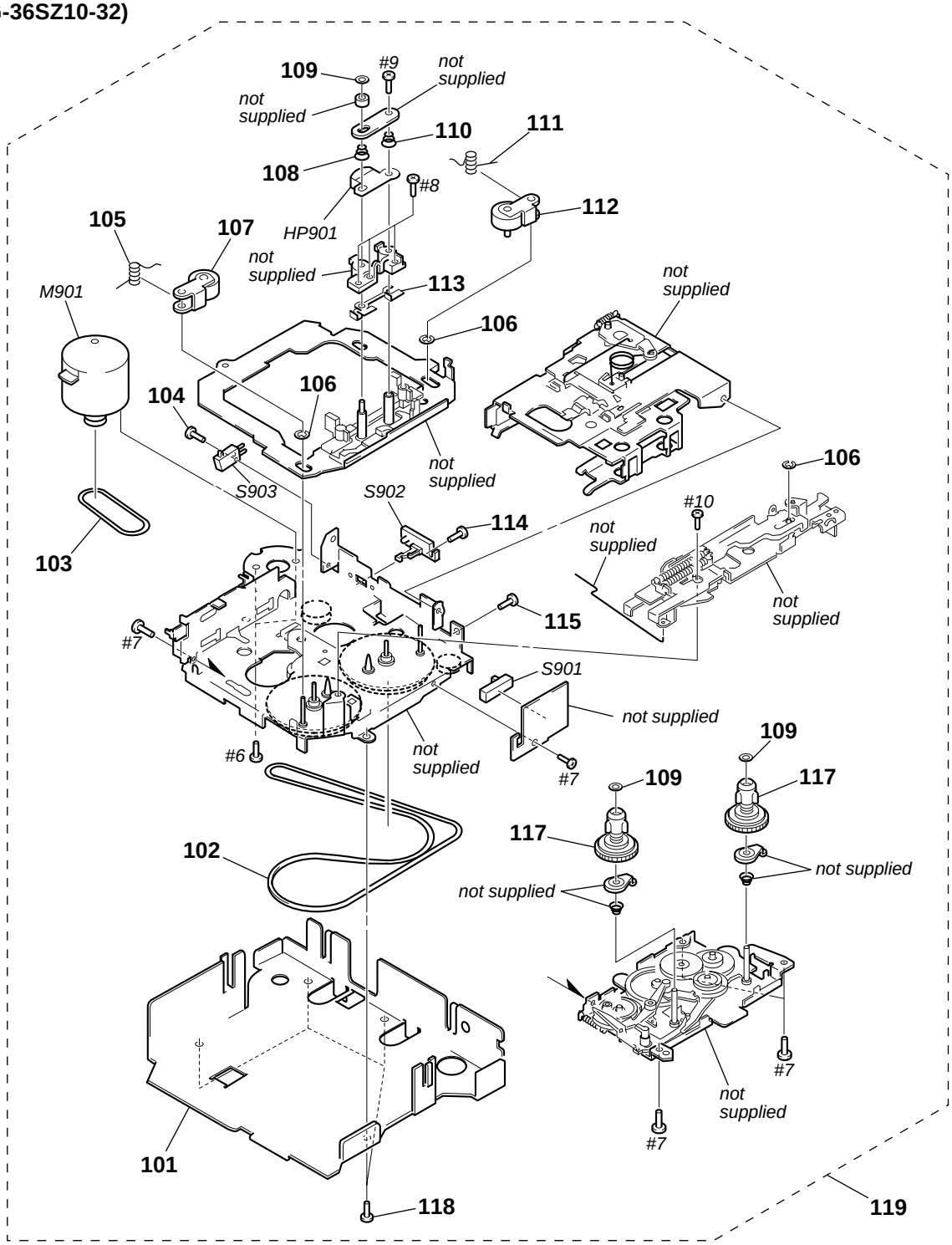
(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-041-597-01	BUTTON (1-6) (1. 2. 3. 4. 5. 6)	
52	3-041-582-01	BUTTON (EJECT) (⏏)	
53	3-029-327-01	SPRING (EJECT)	
54	3-041-605-11	BUTTON (RELEASE)	
55	3-932-475-01	SPRING (RELEASE)	
56	3-041-596-01	BUTTON (SOURCE)	
57	3-041-604-11	BUTTON (VOL)	
58	3-041-603-21	BUTTON (CROSS) (DISC +. DISC –. + ▶▶I ▶▶. – I◀◀ ◀◀)	
59	3-041-595-01	BUTTON (S/M) (MENU. SOUND)	
* 60	3-043-247-01	CUSHION (CROSS)	
61	3-041-593-01	PLATE (RING), LIGHT GUIDE	
62	3-041-594-01	BUTTON (D/M/E) (DSPL. MODE. ENTER)	

Ref. No.	Part No.	Description	Remark
* 63	3-041-591-01	PLATE (LCD), GROUND	
* 64	3-041-589-01	PLATE, LIGHT GUIDE	
* 65	3-041-592-01	ILLUMINATOR	
66	1-694-696-11	CONDUCTOR BOARD, CONNECTION	
* 67	3-041-590-01	HOLDER (LCD)	
68	3-041-588-01	PANEL, FRONT BACK	
69	3-041-598-01	BUTTON (D-BASS)	
70	3-041-601-11	BUTTON (OFF)	
71	3-375-372-01	SPRING (F/R)	
72	3-041-583-01	BUTTON (FF) (▶▶)	
73	3-041-584-01	BUTTON (REW) (◀◀)	
74	X-3378-652-1	PANEL SUB ASSY	
LCD900	1-803-841-11	DISPLAY PANEL, LIQUID CRYSTAL	

(3) MECHANISM DECK SECTION (MG-36SZ10-32)



Ref. No.	Part No.	Description	Remark
* 101	3-041-579-01	BRACKET (MD)	
102	3-045-943-01	MAIN BELT	
103	3-045-945-01	SUB BELT (C)	
104	3-045-953-01	+MACHINE SCREW M1.7X6	
105	3-045-940-01	PINCH ARM SPG (R)	
106	3-045-950-01	E-RING (DIA. 2)	
107	3-045-890-01	PINCH ARM (R)	
108	3-045-933-01	ADJUSTER ARM SPG (B)	
109	3-045-949-01	PSW (REEL) B	
110	3-045-932-01	ADJUSTER ARM SPG (A)	
111	3-045-939-01	PINCH ARM SPG (F)	
112	3-045-891-01	PINCH ARM (F)	

Ref. No.	Part No.	Description	Remark
113	3-045-906-01	ADJUSTER SHIM (X)	
114	3-045-952-01	+MACHINE SCREW M1.7X4	
115	3-713-786-51	SCREW +P 2X3	
117	3-045-893-01	REEL SPINDLE	
118	3-046-138-01	SCREW (2.6X4) (STYLE) (CZN) +B	
119	A-3220-753-A	MECHANISM DECK ASSY (MG-36SZ10-32)	
HP901	1-500-661-11	HEAD (PLAYBACK)	
M901	1-763-507-11	MOTOR (CAPSTAN/REEL)	
S901	1-771-928-11	SWITCH (SLIDE) (DIRECTION)	
S902	1-771-926-11	SWITCH (LEAF) (FF/REW)	
S903	1-771-927-11	SWITCH (LEAF) (TAPE DETECT)	

Ver 1.1

KEY

SECTION 7
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
	1-694-414-11	CONDUCTOR BOARD, CONNENTION			
*	3-041-589-01	PLATE, LIGHT GUIDE			
*	3-041-590-01	HOLDER (LCD)			
*	3-041-591-01	PLATE (LCD), GROUND			
*	3-041-592-01	ILLUMINATOR			
		< CAPACITOR >			
C900	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C901	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C902	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C903	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C904	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
		< CONNECTOR >			
CN901	1-764-312-11	PLUG, CONNECTOR 12P			
		< DIODE >			
D900	8-719-070-58	DIODE PDZ6.2B-115			
D901	8-719-070-58	DIODE PDZ6.2B-115			
D902	8-719-070-58	DIODE PDZ6.2B-115			
D903	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)			
D904	8-719-033-14	LED CL-170PG-CD-T (SOURCE)			
D905	8-719-033-14	LED CL-170PG-CD-T (SOURCE)			
D906	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)			
D907	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)			
D908	8-719-033-14	LED CL-170PG-CD-T (ILLUMINATION)			
D910	8-719-070-55	DIODE PDZ4.7B-115			
		< IC >			
IC900	8-759-366-34	IC LC75824E			
		< LIQUID CRYSTAL DISPLAY >			
LCD900	1-803-841-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< PILOT LAMP >			
PL900	1-517-975-11	LAMP, PILOT (GREEN) (LCD BACK LIGHT)			
PL901	1-517-975-11	LAMP, PILOT (GREEN) (LCD BACK LIGHT)			
		< RESISTOR >			
R903	1-216-043-00	RES, CHIP	560	5%	1/10W
R904	1-216-043-00	RES, CHIP	560	5%	1/10W

Ref. No.	Part No.	Description			Remark
R906	1-216-049-11	RES, CHIP	1K	5%	1/10W
R907	1-216-049-11	RES, CHIP	1K	5%	1/10W
R908	1-216-049-11	RES, CHIP	1K	5%	1/10W
R909	1-216-117-00	RES, CHIP	680K	5%	1/10W
R910	1-216-109-00	RES, CHIP	330K	5%	1/10W
R911	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R912	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R913	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R914	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R915	1-208-437-61	RES, CHIP	1K	2%	1/10W
R916	1-208-441-61	RES, CHIP	1.5K	2%	1/10W
R919	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R920	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R921	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R922	1-208-437-61	RES, CHIP	1K	2%	1/10W
R923	1-208-441-61	RES, CHIP	1.5K	2%	1/10W
R924	1-208-441-61	RES, CHIP	1.5K	2%	1/10W
R925	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R926	1-208-449-61	RES, CHIP	3.3K	2%	1/10W
R927	1-208-453-61	RES, CHIP	4.7K	2%	1/10W
R928	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R929	1-208-462-61	RES, CHIP	10K	2%	1/10W
R932	1-216-043-00	RES, CHIP	560	5%	1/10W
R933	1-216-043-00	RES, CHIP	560	5%	1/10W
R934	1-216-043-00	RES, CHIP	560	5%	1/10W
R935	1-216-043-00	RES, CHIP	560	5%	1/10W
R936	1-216-043-00	RES, CHIP	560	5%	1/10W
R937	1-216-043-00	RES, CHIP	560	5%	1/10W
R938	1-216-047-00	RES, CHIP	820	5%	1/10W
R939	1-216-047-00	RES, CHIP	820	5%	1/10W
		< ROTARY ENCODER/SWITCH >			
S900	1-475-014-11	ENCODER, ROTARY (VOLUME/BASS/TREBLE/ BALANCE/FADER CONTROL)			
S901	1-771-882-11	SWITCH, TACTILE (WITH LED) (OFF)			
S902	1-771-882-11	SWITCH, TACTILE (WITH LED) (3)			
S903	1-771-882-11	SWITCH, TACTILE (WITH LED) (4)			
S904	1-771-882-11	SWITCH, TACTILE (WITH LED) (5)			
S905	1-771-882-11	SWITCH, TACTILE (WITH LED) (6)			
S906	1-762-737-11	SWITCH, KEY BOARD (WITH LED) (D-BASS)			
S909	1-771-882-11	SWITCH, TACTILE (WITH LED) (SHUF 2)			
S910	1-771-882-11	SWITCH, TACTILE (WITH LED) (REP 1)			
S911	1-762-617-21	SWITCH, KEY BOARD (WITH LED) (ENTER)			

Ref. No.	Part No.	Description			Remark
S912	1-762-617-21	SWITCH, KEY BOARD (WITH LED) (MODE)			
S913	1-762-617-21	SWITCH, KEY BOARD (WITH LED) (DSPL)			
S914	1-771-027-21	SWITCH, KEY BOARD (WITH LED) (SEEK/AMS + ▶▶I ▶▶)			
S915	1-771-027-21	SWITCH, KEY BOARD (WITH LED) (PRST -, DISC -)			
S916	1-771-884-21	SWITCH, TACTILE (WITH LED) (SOURCE)			
S917	1-771-027-21	SWITCH, KEY BOARD (WITH LED) (PRST +, DISC +)			
S918	1-771-027-21	SWITCH, KEY BOARD (WITH LED) (SEEK/AMS - I◀◀ ◀◀)			
S919	1-762-617-21	SWITCH, KEY BOARD (WITH LED) (SOUND)			
S920	1-762-617-21	SWITCH, KEY BOARD (WITH LED) (MENU)			
**********					
*	A-3326-544-A	MAIN BOARD, COMPLETE			
		**********			
*	3-041-577-01	HEAT SINK			
*	3-041-578-01	BRACKET (IC)			
	7-685-535-14	SCREW +BTP 2.6X10 TYPE2 N-S			
		< CAPACITOR/SHORT >			
C2	1-164-004-11	CERAMIC CHIP	0. 1uF	10%	25V
C3	1-124-584-00	ELECT	100uF	20%	10V
C4	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C5	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C6	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C7	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C8	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C10	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C12	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C13	1-163-133-11	CERAMIC CHIP	470PF	5%	50V
C14	1-115-565-11	CERAMIC CHIP	2.2uF	10%	10V
C15	1-163-133-11	CERAMIC CHIP	470PF	5%	50V
C16	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C101	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C102	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C103	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C105	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C108	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C109	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C110	1-126-176-11	ELECT	220uF	20%	10V
C111	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C113	1-126-157-11	ELECT	10uF	20%	16V
C114	1-216-295-00	SHORT	0		
C115	1-216-295-00	SHORT	0		
C116	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C118	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C120	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C121	1-124-234-00	ELECT	22uF	20%	16V
C123	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C124	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C130	1-163-085-00	CERAMIC CHIP	2PF	0.25PF	50V
C131	1-163-224-11	CERAMIC CHIP	7PF	0.5PF	50V
C132	1-163-224-11	CERAMIC CHIP	7PF	0.5PF	50V
C133	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C134	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C135	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C136	1-163-017-00	CERAMIC CHIP	0.0047uF	10%	50V

Ref. No.	Part No.	Description			Remark
C137	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C138	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C139	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C140	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C141	1-126-157-11	ELECT	10uF	20%	16V
C142	1-126-157-11	ELECT	10uF	20%	16V
C143	1-124-234-00	ELECT	22uF	20%	16V
C144	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C145	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C146	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C147	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C148	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C151	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C152	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C160	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C161	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C162	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C164	1-124-257-00	ELECT	2.2uF	20%	50V
C165	1-124-257-00	ELECT	2.2uF	20%	50V
C300	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C301	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C302	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C303	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C304	1-124-584-00	ELECT	100uF	20%	10V
C305	1-124-584-00	ELECT	100uF	20%	10V
C306	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C307	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C308	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C309	1-124-228-11	ELECT	22uF	20%	10V
C310	1-124-229-00	ELECT	33uF	20%	10V
C311	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C400	1-104-942-11	ELECT	1uF	20%	50V
C401	1-104-942-11	ELECT	1uF	20%	50V
C402	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C403	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C404	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C405	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C406	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C407	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C408	1-126-157-11	ELECT	10uF	20%	16V
C409	1-126-157-11	ELECT	10uF	20%	16V
C410	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C411	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C412	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C413	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C414	1-126-157-11	ELECT	10uF	20%	16V
C415	1-126-157-11	ELECT	10uF	20%	16V
C416	1-126-163-11	ELECT	4.7uF	20%	50V
C417	1-126-163-11	ELECT	4.7uF	20%	50V
C418	1-126-163-11	ELECT	4.7uF	20%	50V
C419	1-126-163-11	ELECT	4.7uF	20%	50V
C420	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C421	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C422	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C423	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C424	1-124-464-11	ELECT	0.22uF	20%	50V
C425	1-124-464-11	ELECT	0.22uF	20%	50V
C426	1-124-464-11	ELECT	0.22uF	20%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C427	1-124-464-11	ELECT	0.22uF	20%	50V
C428	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C429	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C430	1-124-234-00	ELECT	22uF	20%	16V
C431	1-124-584-00	ELECT	100uF	20%	10V
C434	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C435	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C436	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C437	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C501	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C502	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C503	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C508	1-124-589-11	ELECT	47uF	20%	16V
C509	1-104-942-11	ELECT	1uF	20%	50V
C510	1-104-942-11	ELECT	1uF	20%	50V
C511	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C512	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C513	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C601	1-124-589-11	ELECT	47uF	20%	16V
C602	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C603	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C604	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C605	1-104-942-11	ELECT	1uF	20%	50V
C606	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C607	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C609	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C700	1-126-936-11	ELECT	3300uF	20%	16V
C701	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C702	1-119-774-11	ELECT	100uF	20%	16V
C709	1-126-157-11	ELECT	10uF	20%	16V
C710	1-126-382-11	ELECT	100uF	20%	16V
C712	1-126-157-11	ELECT	10uF	20%	16V
C713	1-124-229-00	ELECT	33uF	20%	10V
C714	1-125-701-11	DOUBLE LAYER	0.047F		5.5V
C716	1-126-157-11	ELECT	10uF	20%	16V
C717	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C718	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C719	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C723	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C724	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C800	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C801	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C802	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C803	1-126-940-11	ELECT	330uF	20%	25V
		< CONNECTOR/JACK >			
CN100	1-764-808-21	JACK (ANT) (FM/AM ANTENNA)			
* CN300	1-564-705-11	PIN, CONNECTOR (PC BOARD) 3P			
* CN350	1-573-486-11	PIN, CONNECTOR (PC BOARD) 8P			
CN400	1-774-699-12	JACK, PIN 4P (BUS AUDIO IN, AUDIO OUT (LINE OUT))			
CN600	1-794-311-11	PLUG, CONNECTOR 12P			
CN700	1-774-701-11	PIN, CONNECTOR 16P			
CN800	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			
		< DIODE >			
D1	8-719-991-33	DIODE 1SS133T-77			
D2	8-719-991-33	DIODE 1SS133T-77			
D100	8-719-988-61	DIODE 1SS355TE-17			
D101	8-719-109-89	DIODE RD5.6ESB2			
D102	8-719-991-33	DIODE 1SS133T-77			
D103	8-719-988-61	DIODE 1SS355TE-17			
D300	8-719-991-33	DIODE 1SS133T-77			
D400	8-719-109-72	DIODE RD3.9ES-B2			
D500	8-719-200-82	DIODE 11ES2			
D501	8-719-200-82	DIODE 11ES2			
D502	8-719-200-82	DIODE 11ES2			
D503	8-719-200-82	DIODE 11ES2			
D504	8-719-200-82	DIODE 11ES2			
D505	8-719-200-82	DIODE 11ES2			
D506	8-719-200-82	DIODE 11ES2			
D507	8-719-200-82	DIODE 11ES2			
D600	8-719-991-33	DIODE 1SS133T-77			
D603	8-719-921-63	DIODE MTZJ-7.5B			
D605	8-719-110-49	DIODE RD18ES-B2			
D606	8-719-109-97	DIODE RD6.8ES-B2			
D607	8-719-109-97	DIODE RD6.8ES-B2			
D608	8-719-109-97	DIODE RD6.8ES-B2			
D609	8-719-109-97	DIODE RD6.8ES-B2			
D610	8-719-109-97	DIODE RD6.8ES-B2			
D611	8-719-109-97	DIODE RD6.8ES-B2			
D612	8-719-109-97	DIODE RD6.8ES-B2			
D613	8-719-109-97	DIODE RD6.8ES-B2			
D614	8-719-109-97	DIODE RD6.8ES-B2			
D615	8-719-991-33	DIODE 1SS133T-77			
D616	8-719-988-61	DIODE 1SS355TE-17			
D617	8-719-929-15	DIODE HZS9.1NB2			
D618	8-719-988-61	DIODE 1SS355TE-17			
D700	8-719-049-38	DIODE 1N5404TU			
D702	8-719-200-82	DIODE 11ES2			
D703	8-719-200-82	DIODE 11ES2			
D705	8-719-048-54	DIODE MTZJ-T-77-10A			
D706	8-719-200-82	DIODE 11ES2			
D707	8-719-935-40	DIODE HZS6B2LTD			
D708	8-719-200-82	DIODE 11ES2			
D709	8-719-200-82	DIODE 11ES2			
D712	8-719-991-33	DIODE 1SS133T-77			
D800	8-719-109-97	DIODE RD6.8ES-B2			
D801	8-719-109-93	DIODE RD6.2ESB2			
D802	8-719-110-49	DIODE RD18ES-B2			
D804	8-719-110-49	DIODE RD18ES-B2			
		< DISCHARGE GAP >			
DSP100	1-519-504-11	GAP, DISCHARGE			
		< FUSE >			
F700	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A			
		< IC >			
IC1	8-759-663-57	IC MN101C12GTF			
IC2	8-759-574-61	IC XC61AN4302MR			
IC3	8-759-574-59	IC XC61BN3312MR			
IC130	8-759-586-59	IC TB2118F-EL-S			
IC300	8-759-924-46	IC BA4560F			

Ref. No.	Part No.	Description			Remark
IC400	8-759-487-82	IC LC75374E			
IC500	8-759-486-44	IC TDA7386			
IC800	8-759-096-16	IC MM1175XFF			
		< SHORT >			
JC1	1-216-296-00	SHORT	0		
JC2	1-216-296-00	SHORT	0		
JC3	1-216-296-00	SHORT	0		
		< COIL >			
L1	1-410-509-11	INDUCTOR	10uH		
L100	1-416-636-51	COIL (AM ANT)			
L102	1-410-515-11	INDUCTOR	33uH		
L103	1-410-509-11	INDUCTOR	10uH		
L130	1-410-750-41	INDUCTOR	0.47uH		
L700	1-419-476-11	INDUCTOR	250uH		
		< TRANSISTOR >			
Q1	8-729-901-46	TRANSISTOR	DTA114YK		
Q3	8-729-422-33	TRANSISTOR	2PD601AR-115		
Q100	8-729-043-28	TRANSISTOR	PDTC124EK-115		
Q101	8-729-043-28	TRANSISTOR	PDTC124EK-115		
Q102	8-729-901-46	TRANSISTOR	DTA114YK		
Q103	8-729-904-63	TRANSISTOR	DTB123YK		
Q104	8-729-205-96	TRANSISTOR	2SC3668		
Q105	8-729-043-28	TRANSISTOR	PDTC124EK-115		
Q106	8-729-901-46	TRANSISTOR	DTA114YK		
Q400	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q401	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q402	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q403	8-729-920-21	TRANSISTOR	DTC314TKH04		
Q600	8-729-043-32	TRANSISTOR	PDTA114EK-115		
Q601	8-729-809-73	FET 2SK536-TB			
Q604	8-729-043-27	TRANSISTOR	PDTC114EK-115		
Q605	8-729-422-33	TRANSISTOR	2PD601AR-115		
Q606	8-729-216-22	TRANSISTOR	2PB709AR-115		
Q700	8-729-921-48	TRANSISTOR	2SD1760F5-TRPQR		
Q701	8-729-216-22	TRANSISTOR	2SA1162-G		
Q702	8-729-043-30	TRANSISTOR	PDTC114TK-115		
Q703	8-729-205-95	TRANSISTOR	2SA1428Y		
Q704	8-729-205-95	TRANSISTOR	2SA1428Y		
Q705	8-729-216-22	TRANSISTOR	2SA1162-G		
Q706	8-729-043-28	TRANSISTOR	PDTC124EK-115		
Q707	8-729-205-95	TRANSISTOR	2SA1428Y		
Q708	8-729-043-27	TRANSISTOR	PDTC114EK-115		
Q709	8-729-205-95	TRANSISTOR	2SA1428Y		
Q710	8-729-043-27	TRANSISTOR	PDTC114EK-115		
Q711	8-729-422-33	TRANSISTOR	2PD601AR-115		
		< RESISTOR >			
R2	1-216-089-00	RES, CHIP	47K	5%	1/10W
R3	1-216-089-00	RES, CHIP	47K	5%	1/10W
R4	1-216-035-00	METAL CHIP	270	5%	1/10W
R5	1-216-033-00	METAL CHIP	220	5%	1/10W
R9	1-249-417-11	CARBON	1K	5%	1/4W
R10	1-216-097-00	RES, CHIP	100K	5%	1/10W
R11	1-216-097-00	RES, CHIP	100K	5%	1/10W
R12	1-249-417-11	CARBON	1K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R13	1-249-417-11	CARBON	1K	5%	1/4W
R14	1-249-417-11	CARBON	1K	5%	1/4W
R15	1-249-417-11	CARBON	1K	5%	1/4W
R16	1-249-417-11	CARBON	1K	5%	1/4W
R17	1-216-049-11	RES, CHIP	1K	5%	1/10W
R18	1-216-097-00	RES, CHIP	100K	5%	1/10W
R19	1-216-097-00	RES, CHIP	100K	5%	1/10W
R20	1-216-097-00	RES, CHIP	100K	5%	1/10W
R21	1-216-049-11	RES, CHIP	1K	5%	1/10W
R22	1-249-417-11	CARBON	1K	5%	1/4W
R23	1-249-417-11	CARBON	1K	5%	1/4W
R24	1-216-097-00	RES, CHIP	100K	5%	1/10W
R25	1-216-097-00	RES, CHIP	100K	5%	1/10W
R27	1-216-049-11	RES, CHIP	1K	5%	1/10W
R28	1-216-097-00	RES, CHIP	100K	5%	1/10W
R29	1-216-085-00	METAL CHIP	33K	5%	1/10W
R30	1-249-429-11	CARBON	10K	5%	1/4W
R31	1-216-073-00	METAL CHIP	10K	5%	1/10W
R32	1-216-097-00	RES, CHIP	100K	5%	1/10W
R33	1-216-097-00	RES, CHIP	100K	5%	1/10W
R34	1-216-097-00	RES, CHIP	100K	5%	1/10W
R38	1-216-097-00	RES, CHIP	100K	5%	1/10W
R39	1-216-097-00	RES, CHIP	100K	5%	1/10W
R40	1-216-049-11	RES, CHIP	1K	5%	1/10W
R41	1-216-049-11	RES, CHIP	1K	5%	1/10W
R46	1-216-089-00	RES, CHIP	47K	5%	1/10W
R49	1-216-089-00	RES, CHIP	47K	5%	1/10W
R100	1-216-049-11	RES, CHIP	1K	5%	1/10W
R101	1-216-049-11	RES, CHIP	1K	5%	1/10W
R102	1-216-029-00	METAL CHIP	150	5%	1/10W
R104	1-216-089-00	RES, CHIP	47K	5%	1/10W
R106	1-216-049-11	RES, CHIP	1K	5%	1/10W
R107	1-249-413-11	CARBON	470	5%	1/4W
R109	1-216-073-00	METAL CHIP	10K	5%	1/10W
R110	1-216-295-00	SHORT	0		
R111	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R112	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R113	1-216-081-00	METAL CHIP	22K	5%	1/10W
R116	1-216-298-11	RES, CHIP	2.2	55	1/10W
R130	1-216-049-11	RES, CHIP	1K	5%	1/10W
R131	1-216-049-11	RES, CHIP	1K	5%	1/10W
R132	1-216-049-11	RES, CHIP	1K	5%	1/10W
R133	1-216-049-11	RES, CHIP	1K	5%	1/10W
R134	1-216-073-00	METAL CHIP	10K	5%	1/10W
R135	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R136	1-216-075-00	METAL CHIP	12K	5%	1/10W
R137	1-216-077-00	RES, CHIP	15K	5%	1/10W
R139	1-216-049-11	RES, CHIP	1K	5%	1/10W
R140	1-216-001-00	RES, CHIP	10	5%	1/10W
R141	1-216-089-00	RES, CHIP	47K	5%	1/10W
R142	1-216-025-00	RES, CHIP	100	5%	1/10W
R143	1-249-413-11	CARBON	470	5%	1/4W
R150	1-216-296-00	SHORT	0		
R152	1-249-428-11	CARBON	8.2K	5%	1/4W
R153	1-249-428-11	CARBON	8.2K	5%	1/4W
R160	1-216-075-00	METAL CHIP	12K	5%	1/10W
R161	1-216-075-00	METAL CHIP	12K	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R162	1-249-417-11	CARBON	1K	5%	1/4W
R163	1-249-417-11	CARBON	1K	5%	1/4W
R300	1-216-089-00	RES, CHIP	47K	5%	1/10W
R301	1-216-089-00	RES, CHIP	47K	5%	1/10W
R302	1-216-013-00	METAL CHIP	33	5%	1/10W
R303	1-216-013-00	METAL CHIP	33	5%	1/10W
R304	1-216-115-00	METAL CHIP	560K	5%	1/10W
R305	1-216-115-00	METAL CHIP	560K	5%	1/10W
R306	1-216-077-00	RES, CHIP	15K	5%	1/10W
R307	1-216-077-00	RES, CHIP	15K	5%	1/10W
R308	1-249-417-11	CARBON	1K	5%	1/4W
R309	1-249-417-11	CARBON	1K	5%	1/4W
R310	1-216-073-00	METAL CHIP	10K	5%	1/10W
R311	1-216-073-00	METAL CHIP	10K	5%	1/10W
R312	1-249-393-11	CARBON	10	5%	1/4W
R400	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R401	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R402	1-216-182-00	RES, CHIP	220	5%	1/8W
R403	1-216-033-00	METAL CHIP	220	5%	1/10W
R404	1-216-182-00	RES, CHIP	220	5%	1/8W
R405	1-216-182-00	RES, CHIP	220	5%	1/8W
R406	1-216-214-00	RES, CHIP	4.7K	5%	1/8W
R407	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R408	1-216-214-00	RES, CHIP	4.7K	5%	1/8W
R409	1-216-214-00	RES, CHIP	4.7K	5%	1/8W
R410	1-216-089-00	RES, CHIP	47K	5%	1/10W
R411	1-216-089-00	RES, CHIP	47K	5%	1/10W
R412	1-216-089-00	RES, CHIP	47K	5%	1/10W
R413	1-216-089-00	RES, CHIP	47K	5%	1/10W
R414	1-216-295-00	SHORT	0		
R415	1-216-296-00	SHORT	0		
R416	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R417	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R418	1-216-073-00	METAL CHIP	10K	5%	1/10W
R419	1-216-073-00	METAL CHIP	10K	5%	1/10W
R420	1-249-393-11	CARBON	10	5%	1/4W
R500	1-216-089-00	RES, CHIP	47K	5%	1/10W
R502	1-216-073-00	METAL CHIP	10K	5%	1/10W
R503	1-247-855-11	CARBON	10K	5%	1/4W
R504	1-216-009-00	RES, CHIP	22	5%	1/10W
R601	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R605	1-216-089-00	RES, CHIP	47K	5%	1/10W
R606	1-216-089-00	RES, CHIP	47K	5%	1/10W
R609	1-208-806-11	RES, CHIP	10K	0.5%	1/10W
R610	1-208-806-11	RES, CHIP	10K	0.5%	1/10W
R611	1-216-097-00	RES, CHIP	100K	5%	1/10W
R612	1-216-097-00	RES, CHIP	100K	5%	1/10W
R613	1-216-025-00	RES, CHIP	100	5%	1/10W
R614	1-216-025-00	RES, CHIP	100	5%	1/10W
R615	1-216-025-00	RES, CHIP	100	5%	1/10W
R616	1-216-025-00	RES, CHIP	100	5%	1/10W
R617	1-247-807-31	CARBON	100	5%	1/4W
R618	1-216-049-11	RES, CHIP	1K	5%	1/10W
R619	1-216-049-11	RES, CHIP	1K	5%	1/10W
R620	1-216-049-11	RES, CHIP	1K	5%	1/10W
R621	1-216-025-00	RES, CHIP	100	5%	1/10W
R622	1-216-089-00	RES, CHIP	47K	5%	1/10W
R623	1-247-839-11	CARBON	2.2K	5%	1/4W
R624	1-216-049-11	RES, CHIP	1K	5%	1/10W
R625	1-216-049-11	RES, CHIP	1K	5%	1/10W
R700	1-249-413-11	CARBON	470	5%	1/4W
R701	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R702	1-249-421-11	CARBON	2.2K	5%	1/4W
R703	1-216-081-00	METAL CHIP	22K	5%	1/10W
R705	1-249-425-11	CARBON	4.7K	5%	1/4W
R706	1-216-089-00	RES, CHIP	47K	5%	1/10W
R707	1-247-863-11	CARBON	22K	5%	1/4W
R708	1-249-421-11	CARBON	2.2K	5%	1/4W
R709	1-216-097-00	RES, CHIP	100K	5%	1/10W
R710	1-249-385-11	CARBON	2.2	5%	1/6W
R711	1-249-385-11	CARBON	2.2	5%	1/6W
R712	1-249-385-11	CARBON	2.2	5%	1/6W
R713	1-249-385-11	CARBON	2.2	5%	1/6W
R714	1-216-073-00	METAL CHIP	10K	5%	1/10W
R715	1-216-295-00	SHORT	0		
R716	1-243-538-11	METAL OXIDE	2.7		1/2W
R717	1-249-421-11	CARBON	2.2K	5%	1/4W
R718	1-243-539-11	METAL OXIDE	1K		1/2W
R719	1-216-073-00	METAL CHIP	10K	5%	1/10W
R720	1-216-081-00	METAL CHIP	22K	5%	1/10W
R800	1-216-017-00	RES, CHIP	47	5%	1/10W
R802	1-216-174-00	RES, CHIP	100	5%	1/8W
R803	1-216-073-00	METAL CHIP	10K	5%	1/10W
R804	1-216-025-00	RES, CHIP	100	5%	1/10W

< SWITCH >

S2	1-692-431-21	SWITCH, TACTILE (RESET)
S3	1-572-552-11	SWITCH, SLIDE (FREQUENCY SELECT)

< THERMISTOR >

TH800	1-801-792-21	THERMISTOR, POSITIVE

< TUNER UNIT >

TU100	1-693-458-11	TUNER UNIT (FM/AM)

< VIBRATOR >

X1	1-781-294-21	VIBRATOR, CRYSTAL (18.432MHz)
X2	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)
X100	1-781-833-21	VIBRATOR, CRYSTAL (10.25MHz)

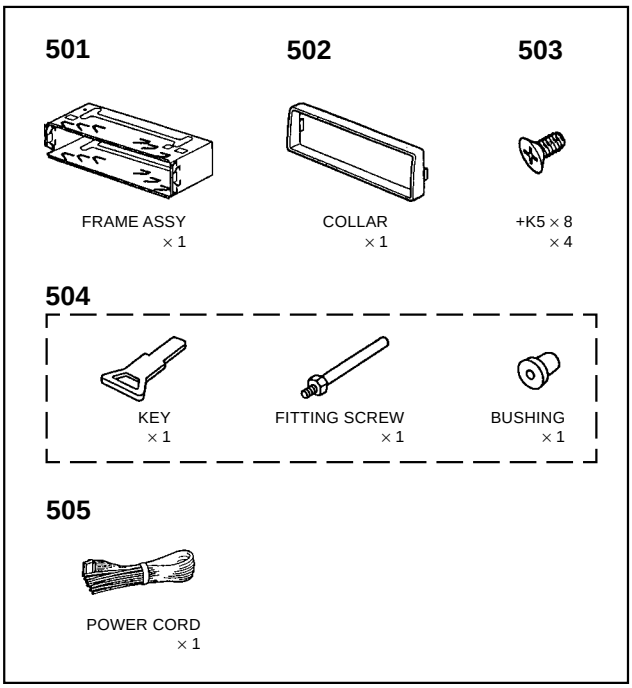
****

MISCELLANEOUS
****

9	1-776-207-31	CORD (WITH CONNECTOR) (POWER)
66	1-694-696-11	CONDUCTOR BOARD, CONNECTION
F700	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)
HP901	1-500-661-11	HEAD (PLAYBACK)
LCD900	1-803-841-11	DISPLAY PANEL, LIQUID CRYSTAL
M901	1-763-507-11	MOTOR (CAPSTAN/REEL)
S901	1-771-928-11	SWITCH (SLIDE) (DIRECTION)
S902	1-771-926-11	SWITCH (LEAF) (FF/REW)
S903	1-771-927-11	SWITCH (LEAF) (TAPE DETECT)

****

Ref. No.	Part No.	Description	Remark
		**********	
		HARDWARE LIST	
		**********	
#2	7-685-533-14	SCREW +BTP 2.6X6 TYPE2 N-S	
#3	7-685-535-14	SCREW +BTP 2.6X10 TYPE2 N-S	
#4	7-685-106-19	SCREW +P 2X10 TYPE 2 NON-SLIT	
#6	7-627-553-27	PRECISION SCREW +P 2X2.5 TYPE3	
#7	7-685-101-11	SCREW +PTP 2X3 NON-SLIT	
#8	7-621-255-35	SCREW +P 2X5	
#9	7-621-255-25	SCREW +P 2X4	
#10	7-685-781-09	SCREW +PTT 2X4 (S)	
**********			
		ACCCESSORIES & PACKING MATERIALS	
		**********	
	3-868-290-31	MANUAL, INSTRUCTION (ENGLISH, SPANISH, CHINESE)	
	3-868-291-21	CONNECTION, FITTING (ENGLISH, SPANISH, CHINESE)	
	X-3378-490-1	CASE (PANEL) ASSY (for FRONT PANEL)	
**********			
		PARTS FOR INTALLATION AND CONNECTIONS	
		**********	
501	X-3376-298-1	FRAME ASSY, FITTING	
502	3-041-599-01	COLLAR	
503	3-934-325-01	SCREW, +K (5X8) TAPPING	
504	X-3370-077-1	SCREW ASSY (KEY), FITTING	
505	1-776-207-31	CORD (WITH CONNECTOR) (POWER)	



REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2000.02	New
1.1	2002.05	Correction of Part No. for CN901 on KEY board (SPM-02003)